

SHAPING AN AIR FORCE:

A CHIEF'S PERSPECTIVE

BY

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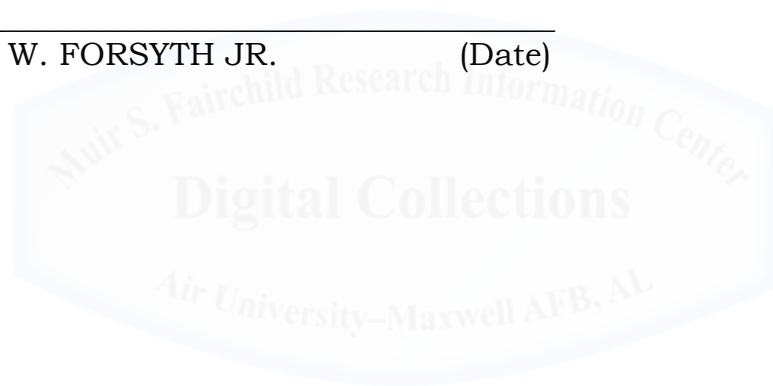
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The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.

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DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.



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ABSTRACT

The USAF has reached a turning point. The wars in Afghanistan and Iraq are ending, and prognosticators claim the occurrence of an MCO is unlikely. CTNA operations and Air/Sea Battle have emerged as the most likely roles for the USAF in the near future. However, what do the USAF's former leaders say about that? The following interviews with past CSAFs will not only cover the optimal balance of the force but will highlight their thoughts on the current force. Topics will cover officer force development, what type of officer can be CSAF, whether space or cyber should be separate services, and their reflections on both the past and the future of the USAF. This represents a unique opportunity to capture the perspectives of a very select group of individuals.

This study aims to develop and analyze the thoughts of eighteen years of CSAF experience during some of the most dramatic and turbulent periods of the USAF's existence. The author developed questions to support a qualitative research interview process. The research seeks to uncover a retrospective point of view of the subjects informed by their experiences. The structure and purpose of the interviews surround the duties of the CSAF and the expected future of the United States Air Force. Furthermore, the author analyzed the interviews to interpret each CSAF's point of view and synthesize those views for trend analysis and knowledge formulation. Insight gained from this examination may aid officers in forming plans for the future growth and development of the USAF. As a minimum, it will provide a point of departure for strategic decisions concerning the future of the USAF.

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Introduction

We better be prepared to dominate the skies above the surface of the earth or be prepared to be buried beneath it.

*General Carl A. "Tooey" Spaatz
1st Chief of Staff of the U.S. Air Force*

Since World War II, the United States has a 0% rate of successfully predicting where it will fight next and what the conflict will entail. As technology advances, the cost of future weapon systems has risen dramatically. To ensure global dominance, United States Air Force (USAF) leaders must maintain a balanced force structure, capable of engaging across the full spectrum of conflict. However, fiscal constraints, the demands of current wars, and perceived future requirements have put an emphasis on irregular warfare at the expense of fielding a balanced force. Secretary of Defense Robert Gates has stated, "I believe that any major weapons program, in order to remain viable, will have to show some utility and relevance to the kind of irregular campaigns that...are most likely to engage America's military in the coming decades."¹ Certainly, the United States faces momentous choices. While the past does not offer a definitive answer, we should look to it to inform our decisions.

Methodology

A series of recent interviews with five former Chiefs of Staff of the United States Air Force (CSAF) whose tenures spanned from 1990 through 2008 will form a rare if ever seen basis for hindsight and reflection. This study analyzes the thoughts of eighteen years of CSAF

¹ Remarks to the Heritage Foundation delivered by Secretary of Defense Robert M. Gates, Colorado Springs, CO, 2008.

experience during some of the most dramatic and turbulent periods of the USAF's existence. Each former CSAF was sent a questionnaire (see Appendix A) and consented to a sit-down interview lasting from one to two hours. It covers the basics of organizing, training and equipping the force as well as answers to questions that many junior officers ponder.

The study centers on qualitative research interviews between the former leader of an organization and a current member. It seeks to uncover a retrospective point of view of the subject informed by their experiences. The structure and purpose of the interview surrounds the duties of the CSAF and the expected future of the United States Air Force. For contextual purposes, the interview conversations delved into relevant topics that inform a larger national defense perspective.

The transcribed interviews were interpreted and analyzed from the current status of the USAF and the nation. The material was structured to develop context, interpret each CSAFs point of view, and synthesize those views for trend analysis and knowledge formulation. Insight gained from this examination may aid officers in forming plans for the future growth and development of the USAF. As a minimum, it will provide a point of departure for strategic decisions concerning the future of the USAF.

Birth of a Service

The service these CSAFs led has had a relatively short though dramatic history. At the behest of Major George Squire, on 1 August 1907 Brigadier General James Allen, Chief Signal Officer of the US Army, signed Office Memorandum No. 6 creating the Aeronautical Division of the US Signal Corps.² Captain Charles deForest Chandler was placed in charge of the division and given the responsibility for all matters pertaining to military aviation.³

² Dr. Juliette A. Hennessey, *The United States Army Air Arm, April 1861 to April 1917*, (USAF Historical Study No. 98 1958), Appendix 1.

³ Hennessey, *The United States Army Air Arm, April 1861 to April 1917*, Appendix 4.

After World War I, General William “Billy” Mitchell, who had led the young Air Service in combat in 1918, declared that aviation made it possible to circumvent enemy armies and strike at the enemy’s “will to resist.”⁴ He stated the objective “is accomplished only by reaching the enemy nation’s vital centers, paralyzing them and making it impossible for the population to carry on in war or to live in peace.”⁵

During the interwar period, airpower theorists and advocates struggled with the application and benefits of aircraft in war. Mitchell, Giulio Douhet, and Hugh Trenchard were a few of the notable theorists that attempted to hypothesize about warfare in the third domain. Although their theories differed slightly, central to their ideas was the notion of an independent air arm and the strategic implications that it held for the conduct of warfare. Airpower advocates embraced these ideas, conceptual and largely untested though they were. Many believed that airpower would revolutionize war and render armies and navies obsolete. Since these theories were unproven in combat, the entrenched military establishment had a skeptical view.

In the search for independence and the relentless pursuit to prove their relevance, airpower strategists held firm to their beliefs that bombing could strategically weaken a nation and circumvent the need for invasion.⁶ Air Corps Tactical School officers believed interconnected economies have certain critical nodes that if taken out would destroy the enemy’s capability to wage war.⁷ Therefore, strategic bombing was central to US air operations in World War II, although the USAAF performed a wide range of other missions.

⁴ Alfred F. Hurley, *Billy Mitchell, Crusader for Air Power*, (Bloomington IN: Indiana University Press, 1964), 111.

⁵ Hurley, *Billy Mitchell, Crusader for Air Power*, 111.

⁶ Richard Overly, *The Air War, 1939-1945*, (Dulles, VA: Potomac Books, Inc., 2005), 62.

⁷ Tami Davis Biddle, *Rhetoric and Reality in Air Warfare*, (Princeton, NJ: Princeton University Press, 2002), 128.

The Army Air Forces' (AAF) pursuit of strategic bombing yielded many lessons. Foremost, air superiority is critical. Carrier based fighters and long-range escort were necessary for success. Additionally, strategic effects are hard to measure and often have unanticipated second and third order effects. Thus, strategic bombing was an integral part of the larger military strategy but not the sole answer. Operationally, the US air component was also learning how to integrate with others.

Generals George Kenney and Pete Quesada were two key AAF officers that championed service cooperation. Kenney's support of Pacific island hopping by establishing local air superiority, interdicting naval resupply, and airlifting troops into battle was the epitome of air-ground support.⁸ Quesada commanded similarly in Operation OVERLORD and cemented tactical airpower success in Normandy.⁹ Both were men of results not afraid to buck parochial trends, which earned them respect from the other services. Ultimately, they proved that accomplishing the objective is the number one priority.

Many other aviation advocates and pioneers followed the lead of Mitchell. Henry "Hap" Arnold, Carl "Tooey" Spaatz, and Curtis E. Lemay were just a few of the instrumental figures in the establishment of the USAF. Their tenacity and vision helped the Aeronautical Division grow into the Army Air Corps, the Army Air Forces, and eventually the USAF in 1947.¹⁰ Moreover, with the establishment of the Department of the Air Force under the Department of Defense (DoD), General Carl Spaatz, the first CSAF, was placed on equal footing with his army and navy counterparts.

⁸ Thomas E. Griffith Jr., *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific*, (Lawrence, KS: University Press of Kansas, 1998), 96.

⁹ Max Hastings, *Overlord, D-Day and the Battle for Normandy*, (New York, NY: Vintage Books, 1984), 272.

¹⁰ Air Force Magazine, "The Air Force in Facts and Figures 2010 USAF Almanac." 2010.

Bolstered by the US Strategic Bombing Survey and the belief that airpower was instrumental in ending WWII, early USAF leaders continued to tout strategic bombardment.¹¹ The largest threat was nuclear war with the Soviet Union, and the newly created Strategic Air Command (SAC) was the organization formed to manage that threat. As a newly independent service, USAF leaders and particularly SAC commander, General Curtis E. LeMay, enthusiastically embraced this function.

The USAF has changed dramatically since General Carl Spaatz first organized, trained and equipped it for the Cold War. The current war in Afghanistan, unrest in the Maghreb, and rising regional powers comprise a landscape that is foreign to 1947. However, the duty of the top USAF officer has always been to present the best force to defend the republic and ensure national security. These duties were first codified in 1956 under Title 10 of US Code.¹²

With nearly 700,000 active duty, guard, reserve, and civilian personnel, the CSAF is responsible for a large and diverse organization. In addition to the duties of a member of the Joint Chiefs of Staff, the CSAF reports directly to the Secretary of the Air Force on all matters of the force. Additionally, the chief of staff is also responsible to prepare, maintain, and present personnel and equipment to the Unified Combatant Commands.¹³

The U.S. Congress endorsed the Goldwater-Nichols Department of Defense Reorganization Act in 1986. It reorganized the Department of Defense to better support joint operations. In response to inter-service rivalry, the stated goals of the Congress were to strengthen civilian control and improve military strategy. The chain of command was

¹¹ Richard R. Muller, *The Air War in the Pacific 1941-1945*, Ed John A. Olsen, (Dulles VA: Potomac Books Inc., 2010), 79.

¹² U.S. Code: Title 10, Chapter 805, Section 8033, Chief of Staff, February 2010.

¹³ U.S. Code: Title 10, Chapter 805, Section 165, Combatant Commands, February 2010.

altered to support the joint application of force under the Combatant Commands. Additionally, it sought to remedy inefficiencies in the acquisition and use of defense resources. Finally, it defined the roles of the CSAF under this new joint construct.¹⁴

As a member of the Joint Chiefs, the CSAF is designated a military adviser to the Secretary of Defense (SECDEF), National Security Council (NSC), and the President of the United States (POTUS).¹⁵ Therefore, the CSAF must be educated on all areas of combat operations within the USAF's purview and their integration with joint operations.¹⁶ Although the CSAF is an administrative position without operational control of forces, the focus must remain on combat operations. In addition to current operations, the leader of the USAF must also look to the future.

Under the authority, direction, and control of the Secretary of the Air Force (SECAF), the chief of staff is responsible for the leadership of the USAF.¹⁷ Through policy guidance and coordination with other agencies and armed services, the CSAF establishes a vision and path for the future. With a planning horizon of nearly two decades, the CSAF must balance readiness and preparedness. Under the duties and responsibilities outlined in US Code Title 10, sections 8013, 8032, and 8033, the CSAF is responsible to organize, supply, recruit, train, equip, and maintain the personnel and resources of the USAF.¹⁸

The Budget

According to the 2011 Air Force Posture Statement, the USAF should prepare for a range of diverse and complex security challenges. It takes into account the National Security Strategy (NSS), the Quadrennial

¹⁴ For detailed information on The Goldwater-Nichols Department of Defense Reorganization Act of 1986, see The National Defense University library accessed at: <http://www.ndu.edu/library/goldnich/goldnich.html>.

¹⁵ U.S. Code: Title 10, Chapter 7, Section 151, Joint Chiefs of Staff, February 2010.

¹⁶ U.S. Code: Title 10, Chapter 7, Section 171, Armed Forces Policy Council, February 2010.

¹⁷ U.S. Code: Title 10, Chapter 805, Section 8033, Chief of Staff, February 2010.

¹⁸ U.S. Code: Title 10, February 2010.

Defense Review (QDR), National Military Strategy (NMS), and the strategic reviews of the nation's space, nuclear, and ballistic missile defense postures.¹⁹ Furthermore, it outlines the USAF's strategic vision of Global Vigilance, Reach, and Power.²⁰ Most importantly, it is a detailed communication of the USAF's Fiscal Year (FY) 2012 budget. It is not only a justification of the budget to the US Congress, but it is the CSAF's strategic plan for the organization. It sets a tone of a fundamental overhaul in procurement, acquisition, and contracting. It is a call for cost-effective measures that leverage and maximize existing systems and capabilities with future requirements.²¹

Foremost, the posture statement highlights the difficult fiscal choices that the USAF faces in the future. However, it still calls for a balanced Air Force that will "provide the necessary capability, capacity, and versatility required to prevail in today's wars, prevent and deter conflict, prepare to defeat adversaries and succeed across the range of potential military operations."²² These challenges range from anti-access/area-denial (A2/AD) from the global commons of sea, air, space and cyberspace to humanitarian assistance. But does the rhetoric match the reality?

Figure 1 is a breakdown of USAF budget allocation for the last 50 years. It shows that joint force support or enabling functions have grown to 45% in the last decade. Could this shift in priorities lead to an imbalance in the force? If the USAF is to respond to the spectrum of challenges from major combat operations (MCO) to humanitarian

¹⁹ Department of the Air Force, *Fiscal Year 2011 Air Force Posture Statement*, February 2011.

²⁰ A detailed description of the USAF's strategic vision is in the Department of the Air Force. *Fiscal Year 2011 Air Force Posture Statement*, February 2011. Global Vigilance is the ability to provide surveillance around the world. Global Reach is the ability to project capability responsively and advantageously without regard to distance. Global Power is the ability to hold at risk any target in the world.

²¹ Department of the Air Force, *Fiscal Year 2011 Air Force Posture Statement*, 4.

²² Department of the Air Force, *Fiscal Year 2011 Air Force Posture Statement*, 29.

assistance, then perhaps the budget should reflect a balance as well. However, the trend suggests the USAF's top priority is the support of counter-terrorism, counter-insurgency, and nation assistance (CTNA) missions.

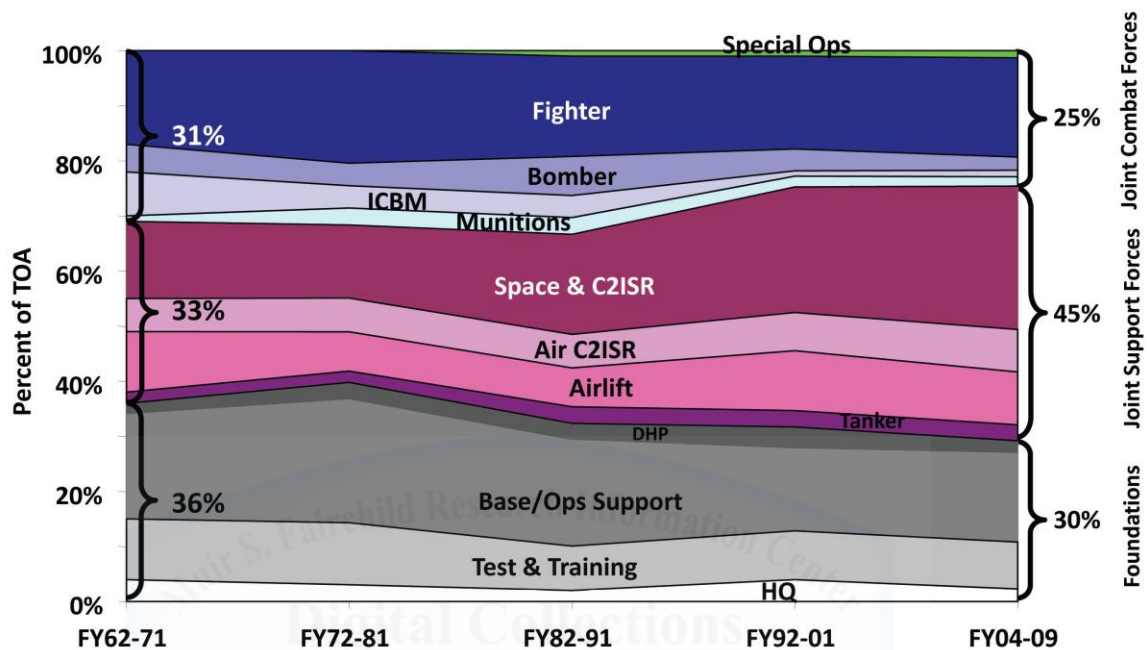


Figure 1: USAF Budget Allocation
(Reprinted from: RAND (Ruehrmund and Bowie), *"Arsenal of Airpower"*, 4.)

The USAF has reached a turning point. The wars in Afghanistan and Iraq are ending. The prognosticators claim the occurrence of an MCO is unlikely. CTNA operations and Air/Sea Battle have emerged as the most likely roles for the USAF in the near future. However, what do the USAF's former leaders say about that? The following interviews with past CSAFs will not only cover the balance of the force but will highlight their thoughts on the current force. Topics will cover officer force development, what type of officer can be CSAF, whether space or cyber should be separate services, and their reflections on both the past and the future of the USAF. This represents a unique opportunity to capture the perspectives of a very select group of individuals.

Chapter 1

General Merrill A. McPeak

It is almost certain that we will be a smaller Air Force in the years ahead. But, our purpose, our goal, our mission, will not change. The only reason any of us are in this blue suit is to produce combat capability to defend the nation.

*General Merrill A. McPeak
14TH Chief of Staff of the U.S. Air Force*

General Merrill A. McPeak earned a bachelor of arts degree in economics from San Diego State College and entered the Air Force in November 1957. The General is a graduate of Armed Forces Staff College, National War College, and the The Executive Development Program, University of Michigan Graduate School of Business. He also holds a Master's degree in International Relations from George Washington University. He was a military fellow, Council on Foreign Relations and has multiple publications in scholarly peer-reviewed journals.¹

The General served two years as a solo pilot for the USAF Aerial Demonstration Team, Thunderbirds. Additionally, he commanded the "Top-Secret" squadron of "Misty" Fast Forward Air Controllers (FACs) under Operation Commando Sabre during the Vietnam War where he flew 269 combat missions.² The General commanded 12th Air Force and Pacific Air Forces (PACAF).³

In October of 1990, General Merrill A. McPeak became the fourteenth CSAF. During his tenure, he was responsible for the largest

¹ United States Air Force Biography of General Merrill A. McPeak, Available from <http://www.af.mil/news/biographies/>.

² McPeak. Biography.

³ McPeak. Biography.

organizational change in USAF structure since its inception in 1947.⁴ He supervised the closing of Strategic Air Command and Air Force Systems Command and the establishment of Air Combat Command. Additionally, he presented forces to Central Command (CENTCOM) commander General Norman Schwarzkopf for Operations DESERT SHIELD/STORM in the defense of Kuwait.⁵ Seventeen years after his retirement, General McPeak remains passionate about the USAF.

Organize and Train

Early in his tour, General McPeak introduced the vision statement, “Air Force people building the world’s most respected air and space force—global power and reach for America.”⁶ This was the USAF’s response to the post-Cold War environment and its vision to support the NSS in a world of undefined threats. “Global Reach-Global Power” provided a road map for the restructuring and modernization efforts necessary to adapt to the US hegemonic era. Although the current USAF vision is similar, the global landscape is significantly different from when the General served. Additionally, the USAF’s structure and officer corps are significantly different. In fact, the current CSAF is not a fighter or bomber pilot; but he is rated.

Asked whether a non-rated person could perform the duties of CSAF, General McPeak qualified his answer with regard to the organizational structure. He stated that, “As it is now organized maybe so, but the Air Force is not properly organized right now.”⁷ He clarified that the environment around which the USAF is organized is incorrect; “it should be concerned with fighting in the Earth’s atmosphere. If we took the space business and put it in a separate service, which we should, then I would think you would always want somebody wearing

⁴ Merrill A. McPeak, *Selected Works, 1990-1994*, (Maxwell Air Force Base, AL: Air University Press, 1995), 51.

⁵ McPeak, *Biography*.

⁶ McPeak, *Selected Works*, 154.

⁷ Merrill A. McPeak, Personal Interview, March 2011.

wings heading the organization responsible for combat in the Earth's atmosphere. Aside from that, I could see a case for having a spaceman at the head of the Air Force as long as we remain improperly organized.”⁸

Furthermore, he elaborated on the USAF as a separate service by saying, “If you are not different, there is no need to be separate; and we're not much different anymore.” Alluding to bureaucratic myopia and different group interest, General McPeak seems to think that the USAF has lost its way. He stated, “The only people that complained when I put maintenance under operations were the professional maintainers.”⁹ After all, maintenance is under operations during combat; but group interests were concerned with career enhancement instead of mission accomplishment. He cited the fact that the majority of the officer corps is concerned with so many things other than dominating the earth's atmosphere.¹⁰ As an air force, “we have wandered a long way from thinking that combat in the atmosphere is what we ought to be doing. If we're just going to do cyber warfare or irregular warfare, we can do that in the army or navy, who are probably equally qualified to do it.”¹¹

General McPeak recommends a downsizing and return to basics. “The real problem is that the air force is too big and too full of noncombatants. We have to be something other than civilians in uniform, which is what many air force people are right now. We need to really work on this problem of how to prevail in the air, in that tiny envelope of air that surrounds this planet.”¹² He cautions that air advocates are a product of our long success, and air opponents forget the necessity for air superiority.

In fact, no enemy air force has attacked American ground forces since 1953. Even then, the attack was a Bed Check Charlie night flight

⁸ McPeak, Interview.

⁹ McPeak, Interview.

¹⁰ McPeak, Interview.

¹¹ McPeak, Interview.

¹² McPeak, Interview.

in Korea with hand grenades tossed out the window.¹³ The last enemy air force to challenge American air superiority was the Luftwaffe in WWII.¹⁴ Of course, there has been air combat, just not over American troops. It has been over the Yalu River, Hanoi, and Baghdad. In the history of air combat from the first occurrence in 1911 in the skies over Libya to the current combat in 2011 in the skies over Libya, the USAF has dominated over 65 percent of that period. General McPeak warns, “that tends to make people think, hey why are these guys needed?”¹⁵ Worse still, it provides an unhealthy impetus for USAF officers to continue to search for ways to justify a separate existence. General McPeak is fine with the external response but highly concerned with the internal. This internal response from USAF members is one reason for an organizational identity crisis.

Instead of touting air dominance and being content with not contributing to every fight, the USAF continues to add mission sets. General McPeak attributes this response to the joint culture where every service has to participate. He states, “This is the pressure that comes from the jointness cult. If we put a no-fly zone over Libya, I can assure you there will be a job for the U.S. Coast Guard, because everybody comes to the table with a capability that has to be used.”¹⁶ He asserts that USAF officers should not allow this mindset to affect airpower advocacy.

Additionally, he attributes the majority of the bureaucratic myopia to the budget. General McPeak highlights that many members of the USAF are only concerned with the size of the force and the amount of money in the budget. He contends that if we focus on multiple missions and a bigger budget, then there is less rationale for a separate service.

¹³ Robert F. Futrell, *The United States Air Force in Korea, 1950-53*, (NY: Duell, Sloan, and Pearce, 1961), 309-310.

¹⁴ McPeak, Interview.

¹⁵ McPeak, Interview.

¹⁶ McPeak, Interview.

The focus should remain on combat in the earth's atmosphere. As for space, he leaves no room for debate, "Space ought to be separate and its own service."¹⁷ One of his major regrets was not fighting harder to separate space from the USAF. Another regret was centered on the way he reorganized the USAF's major commands (MAJCOM).

The Secretary of the Air Force, Donald Rice, warned General McPeak that his reorganization was creating a super MAJCOM in Air Combat Command (ACC), leaving the rest of the MAJCOMs impotent. Therefore, he divided the assets to remain equitable. In his estimation, this was a mistake; and the USAF should be proud that their main MAJCOM was combat related. He stated that, "I don't think you can do air combat without tanking. Tanking is essential and it's a combat capability not a support capability."¹⁸ Finally, he regretted his inability to get USAF officers into Geographic Combatant Command (GCC) positions.

General McPeak expressed frustration with the Chairman of the Joint Chiefs, "Powell was playing the old Army game, he didn't want any airmen to have much authority."¹⁹ However, his philosophy is that you have to get your foot in the door, and he fought hard during his tenure for this step. For example, during Desert Storm, he tried to make Lt Gen Chuck Horner the deputy to General Schwarzkopf. He recognized that even though the USAF shuns deputy positions, the army puts emphasis on them. If air force officers are competent deputies, then they are more likely to receive command of a Combatant Command (COCOM). This also fosters confidence and trust. As far as preparation for the position goes, General McPeak asserts that the USAF is doing what is necessary to prepare its officers for GCC positions. The institution can only get you so far, as officers are ultimately responsible for their own preparation.

¹⁷ McPeak, Interview.

¹⁸ McPeak, Interview.

¹⁹ McPeak, Interview.

He concludes that, “what makes people good Joint Commanders is whether they read at home; but, you really have to know your own business first. Personal preparation begins with a solid understanding of your own profession. People have to understand their business and then they have to prepare themselves for a high command.”²⁰ Expertise also allows an officer to speak intelligently to airpower requirements and systems.

Equip and Sustain

The USAF has highlighted acquisition excellence as a priority for the next decade. Since it is central to the CSAF’s job of equipping the force, General McPeak discussed a few solutions that he implemented during his tenure. “I fought for only two things, one was to control the requirement and two was to test the product.”²¹ He highlighted that the requirement needs to come from an operator. The operator then hands it over to acquisition personnel that write the specifications and manage the industrial complex. Finally, an operator must conduct the operational test of the system. This is controllable from the CSAF’s perspective and allows for a smoother acquisition process; “All the rest of the politically charged stuff is out of my control.”²² In addition, General McPeak is concerned with what systems the USAF is procuring.

Concerning a dedicated combat search and rescue (CSAR) capability in the USAF, General McPeak was hesitant in response. He stated, “Yes I do think we should have a separate CSAR role, but I’m a little bit less enthusiastic about it than I should be.”²³ In the Vietnam War, he participated in CSAR missions that lost more assets than they recovered, which leads to his trepidation about combat rescue. Furthermore, he contends, “I also think that nobody is flying aircraft

²⁰ McPeak, Interview.

²¹ McPeak, Interview.

²² McPeak, Interview.

²³ McPeak, Interview.

because they believe that if they get shot down, they'll be rescued. I mean if you are worried about being shot down, you are in the wrong business. The idea is to shoot the other guy down. So, I'm not overwhelmingly enthusiastic about the rescue business, but I do think we should be doing it."²⁴ The General is equally skeptical about remotely piloted vehicles (RPVs).

He poses the question of the balance between drones and manned aircraft in the Earth's atmosphere. Certainly, the overhead intelligence, surveillance, and reconnaissance (ISR) structure is suited for RPVs. Yet, he questions the cost effectiveness of replacing manned aircraft with drones; "I think it ought to be done with just critical straight forward dollars and cents analysis. What do drones cost, does anybody know? What is their accident rate? I do not know if any real analysis has been done here. Because whatever else you say about pilots, they are the product of unskilled labor. They are fairly cheap. They are highly motivated to come back, and I don't know any way to motivate these drones."²⁵ One area on which the General is clear, the USAF should own everything that operates in the earth's atmosphere, which includes all airborne assets in the army and naval aviation during combat operations. However, he realizes there is little control the USAF would have over the Navy. Furthermore, this arrangement would keep the other services from influencing USAF procurement.

Discussing the procurement of the F-22, he states, "Coming out of Desert Storm, I did what I could to educate the American public; but we're still swimming upstream to try to think that people will understand air power. Fighting on the ground is in our DNA, and ground combat predates our appearance as a species. We all know from birth how to pick up a rock and throw it at something, but air combat is a very new

²⁴ McPeak, Interview.

²⁵ McPeak, Interview.

experience for us.”²⁶ Indeed, General Chuck Horner was the first USAF officer commissioned in the air force to command air forces in combat during Desert Storm. Thus, the job of explaining and advocating airpower is essential to procurement. It also aids in maintaining a balanced force through recapitalization and modernization.

General McPeak’s number one priority for the future would be to reopen the F-22 line and continue to produce at the minimum economical rate. During his tenure, he made the F-22 a multi-role fighter; and probably saved it in the process. His next priority would be long-range strike given the USAF has committed to acquiring the KC-46. Finally, he stated, “I would not do anything to the F-35. I would just keep it going, but I would not be in a real hurry to replace the F-16. I don’t think we should ever buy another non-stealthy combat airplane because stealth is so important in the combat environment.”²⁷

Furthermore, he does not think it is worthwhile to make modifications to fourth generation aircraft for a 4.5-generation solution. He uses the following example to bolster his reasoning:

Today, we have our Secretary of Defense walking around saying how hard it would be to put a no-fly zone over Libya. We have an airplane that can operate in defended air space and achieve air dominance, and Secretary Gates has made the decision that we should stop producing the F-22 because it is no longer needed. The 1st Fighter Wing could ground the Libyan Air Force with a squadron of F-22s, but that would only add further embarrassment because here’s this capability that we recently said is no longer needed anymore that turns out to be just the thing we need in Libya.²⁸

In closing, General McPeak discusses the culture of jointness that has crept into the acquisition process. The culture of jointness is the idea that everybody has a capability that should be included. Although he is adamant that the wars the US fights should be Joint, they should

²⁶ McPeak, Interview.

²⁷ McPeak, Interview.

²⁸ McPeak, Interview.

not be watered down by including everyone. Just look at the specifications on the F-35. Because the F-35 is a joint and international venture, it has multiple customers with various requirements. This leads to satisficing and ultimately an average product.

Perhaps the most vocal CSAF since his retirement, General McPeak frequently contributes op-ed pieces advocating airpower. He remains a staunch proponent of the USAF, and he holds nothing back in his analysis. Many of his ideas about heritage and making the operator the central focus were polarizing to certain groups within the USAF. Indeed, his tenure brought about an organizational change that “rocked the proverbial boat.”

However, his analysis should be viewed with an objective lens. His opinions on separating air, space, and cyber differ from every other CSAF. Additionally, his ideas on the bureaucratic myopia that surrounds the budget and suggest a smaller force with less manpower run contrary to the mainstream. Finally, his critique of the joint environment highlights a negative side to jointness that many people are reluctant to acknowledge.

Chapter 2

General Ronald R. Fogleman

We're entrusted with the security of our nation. The tools of our trade are lethal, and we engage in operations that involve risk to human life and untold national treasure. Because of what we do our standards must be higher than those of society at large.

*General Ronald R. Fogleman
15TH Chief of Staff of the U.S. Air Force*

General Ronald R. Fogleman was the first CSAF to receive a commission from the United States Air Force Academy (USAFA) in 1963. After graduation from pilot training, the General served two flying tours in Vietnam where he amassed 315 combat missions in the F-100 and F-4 aircraft. Along with General McPeak, General Fogleman was also a member of the famous “Misty” FACs, which included two Air Force Chiefs of Staff, seven general officers, two astronauts, numerous industry CEOs, and the first man to fly around the world unrefueled in a light aircraft. As a fast FAC, General Fogleman was shot down by small arms fire on September 12, 1968.¹ Rescued by Special Forces, he escaped on the side of a Cobra helicopter and returned to combat the next day. Between his two combat tours, he also earned a Master of Arts degree in military and political science from Duke University in 1970, and taught as an associate professor of history at his alma mater.²

Prior to command, General Fogleman also had assignments as a personnel officer, student at Army War College, and the F-15 demonstration pilot for United States Air Forces in Europe (USAFE). The staff assignments that had the most impact on General Fogleman were

¹ United States Air Force Biography of General Ronald R. Fogleman, Available from <http://www.af.mil/news/biographies/>.

² Fogleman, Biography.

his tour as an Air Reserve personnel officer and director of programs and evaluation at the Pentagon. They were instrumental in shaping his opinions on total force integration and acquisition reform. Finally, the General commanded 7th Air Force, Air Mobility Command, and United States Transportation Command (USTRANSCOM).³

In October 1994, General Fogleman became the 15th CSAF. His agenda focused on providing stability to the USAF after the dramatic reorganization and drawdown of the early nineties. Additionally, the General stressed personal accountability and cooperation in the joint arena. The focus on accountability was necessary due to a string of accidents that started with the 1994 fratricide of two Army Blackhawks by two F-15s in Northern Iraq and the fatal B-52 airshow crash at Fairchild AFB.⁴ It culminated with the death of an F-15 pilot at Spangdahlem AB, where a crew chief was charged with dereliction of duty and ultimately committed suicide.⁵

Lastly, he changed the USAF's "core competencies" into six distinct mission sets and added the concept of "Global Presence" to the strategic vision of the USAF.⁶ In his own words, "So I get to the Pentagon and the issues I had to deal with initially did not have to do with things like force structure. They were not nearly as sexy but they were much more important. It had to do with integrity of the force, the promotions system, assignment system, all of these things, and so we went to work on that kind of stuff."⁷

Organize and Train

³ Fogleman, Biography.

⁴ Richard H. Kohn, The Early Retirement of Gen Ronald R. Fogleman, Chief of Staff, United States Air Force, *Aerospace Power Journal*, Spring 2001.

⁵ Ronald R. Fogleman, Personal Interview, March 2011.

⁶ Defense Issues: Strategic Vision and Core Competencies, Vol 11 Number 96, Speech delivered by General Ronald R. Fogleman.

⁷ Fogleman, Interview.

In fact, General Fogleman's leadership process started with contemplation and vision. To this end, he gave his Vice Chief of Staff, General Thomas Moorman Jr., the task of running day-to-day operations and administration. This allowed the CSAF to "come to the office, put my feet up, read *The Early Bird*, and contemplate why we are here and what it is that we should accomplish."⁸ One of his areas of concern for the USAF today is a lack of thinking and vision at the top:

Lack of funding or lack of appreciation or priorities for your mission area or your core capabilities can't be an excuse. It can be a reason, but it cannot be an excuse for not having a vision and not thinking. Because if you don't have a vision, you can't lead the force forward. And you are sure not going to convince people in other services and the Congress about what it is that your service can contribute to the welfare of the nation. So, even in the toughest times, you got to have a vision.⁹

General Fogleman is extremely passionate about a back to basics approach that entails simplicity and foundational concepts. Similar to General McPeak's critique of the USAF acquiring too many mission sets, General Fogleman contends that "one of the problems the Air Force has and it goes back to this institutional inferiority complex, is that every administration and chief cannot withstand the urge to meddle with things that ought to be longstanding."¹⁰ As an example, he mentions how the core competencies during his tenure were air and space superiority, global attack, rapid global mobility, precision engagement, information superiority, and agile combat generation. Even though they are now the USAF's six distinct capabilities, his point is that we keep changing things to the point of confusion.

⁸ Fogleman, Interview.

⁹ Fogleman, Interview.

¹⁰ Fogleman, Interview.

The USAF has core competencies, core capabilities, air and space power functions and now distinct capabilities.¹¹ General Fogleman states that this makes it difficult to focus on airpower advocacy. As an airman, it is difficult to advocate and articulate airpower when unnecessary changes are introduced every four years. Even in the simple change from core competencies to distinct capabilities, there is a lack of consistency. If these concepts remained constant, airmen “could figure out from those six where they fit in the air force; and more importantly, be able to articulate airpower to their contemporaries.”¹²

Moreover, the USAF has taken on many missions over the years, and it now encompasses three domains and strategic commons—air, space, and cyberspace. Differing from General McPeak, General Fogleman starts a trend among the other CSAFs with his response to the next question. Asked if a non-rated officer could perform the duties of Chief of Staff, General Fogleman did not hesitate. “Yes, but not every non-rated officer because there's a big difference. What has been their experience, where have they been, all this needs to be accounted.”¹³ His response to the argument that a chief needs to understand rated operations was “then get yourself a rated vice for Christ's sake.”¹⁴ He further caveats, “there are duties that are related to the office that require some appreciation for rated expertise, but there are ways to get around that.”¹⁵ Perhaps this dynamic will become the norm based on how General Fogleman perceives the role of space in the future.

As he mentions, his service on the Space Commission chaired by Donald Rumsfeld, formally known as The Commission to Assess United States National Security Space Management and Organization, exposed

¹¹ AFDD 1-1, Air Force Basic Doctrine, 17 Nov 2003.

¹² Fogleman, Interview.

¹³ Fogleman, Interview.

¹⁴ Fogleman, Interview.

¹⁵ Fogleman, Interview.

him to many suggestions for the proper organization of space forces.¹⁶ He notes, “We’re moving to an air and space force; and eventually, we may end up where we are space and air. I see no reason to separate these, but what I do see is a requirement for the leadership to understand what’s happening as this is going on and understand that the priorities may have to be given to space in the future.”¹⁷ Congruent with the other chiefs except General McPeak, he agrees that space should remain in the USAF; however, he makes a nuanced argument of a shift in priorities that the other CSAFs did not address.

As for the final strategic commons that the USAF claims to dominate, General Fogleman is a little skeptical. Based on the fact that cyberspace is a manmade domain, he thinks we should maintain an expertise but not expect it to be separate. General Fogleman attributes the recent attempts by the USAF to own cyber as another expansion in mission set that moves away from the USAF’s foundation. “The problem is, for years we made air power look so easy that everybody thinks it’s easy and they know how to do it.”¹⁸ This has led air force leadership to seek other missions that increase funding and personnel such as cyber and space. However, General Fogleman warns against straying too far from your core competency.

He recalls some advice that resonated with him prior to his assignment as commander in chief (CINC) USTRANSCOM and CSAF, “My observation is that air force general officers don’t know how to act like CINCs. We just have a different demeanor; we don’t have the presence.”¹⁹ Another cultural disadvantage that hinders USAF officers from GCC commander positions is the reluctance to put our best and

¹⁶ Fogleman, Interview.

¹⁷ Fogleman, Interview.

¹⁸ Fogleman, Interview.

¹⁹ Fogleman, Interview. Advice given to General Fogleman from then US Space Command commander, General Donald Kutyna.

brightest into joint billets.²⁰ General Fogleman recommends, “Start early and put our good people out into the unified commands.”²¹ In his no-nonsense manner, he says, “stop pissing and moaning about it and do something.”²² He also thinks the USAF should have been more proactive in support of the current irregular wars in Iraq and Afghanistan.

Equip and Sustain

Regarding the recent request for increased ISR capabilities, General Fogleman comments, “Our job is to understand the combatant commander’s scheme of maneuver given the threat. I think we were slow to respond to this. We should have seen this coming. We saw it very early in Vietnam. We got on board, fielded the capabilities, and nobody criticized us for not being there.”²³ Although he does not see us in Iraq and Afghanistan forever, his solution is to build and maintain an irregular war capability for the future. “First of all, it’s not as new and expensive as the other things we do, so we can do it and with good faith we’ll become experts in it.”²⁴ He warns that even though the UAV orbits have gotten out of control, the USAF better “step up to its responsibility to the combatant commander” so it can concentrate on the rest of the force structure.²⁵

As CSAF, General Fogleman was intimately involved in the early procurement of the MQ-1 Predator, largely due to the army’s mishandling of their drone program. Because the army had limited aviation experience and treated these aircraft like a truck in the motor pool, they were ill prepared to maintain the larger ISR platforms. Furthermore, General Fogleman’s final assessment was “This thing has a wingspan of a fighter, takes off and lands on a prepared surface, and operates in an

²⁰ Fogleman, Interview.

²¹ Fogleman, Interview.

²² Fogleman, Interview.

²³ Fogleman, Interview.

²⁴ Fogleman, Interview.

²⁵ Fogleman, Interview.

altitude block that must be accommodated in the ATO. The air force must operate it because it is an aerospace vehicle.”²⁶ He will admit that he did not envision the system to be armed, and the USAF was logistically unprepared for the system to become operational.

In addition to the current USAF taskings, General Fogleman recommends certain priorities for the future. He claims the first step for the CSAF is to determine what the nation needs from its air force: “What are the enduring things that an air force is going to do for its country?”²⁷ In his opinion, the number one priority is air and space dominance. His recommendations start with acquiring a new long-range strike platform. Based on fiscal constraints and the cost of producing new technologies, General Fogleman suggests a bomber built similarly to the F-117 that uses existing technologies without having to explore Technology Readiness Levels (TRLs) that involve proofs of concept. He says, “This will take some damn hard discipline on the part of senior leadership and the chief. Because the natural tendency will be to let the requirements creep into this thing, which will make it unaffordable and unattainable.”²⁸

He is also concerned about the fighter force; concluding that although it was a bad decision to stop the production line on the F-22, the USAF should have implemented some stopgap measures. “Since we put all our eggs into the F-35 basket, the real question is, how long can you keep the current force together and a viable fighting force?”²⁹ Based on this, he proposes buying more air superiority fighters that will bridge the gap between the F-22 and the F-35. He states, “We’re almost too late right now, because we are not going to buy the F-35 in the numbers we

²⁶ Fogleman, Interview.

²⁷ Fogleman, Interview.

²⁸ Fogleman, Interview.

²⁹ Fogleman, Interview.

say.”³⁰ General Fogleman thinks that the USAF focuses on the acquisition of these platforms to the detriment of sustainability.

With rising gas prices, the cost of flying hours consumes the budget. A fifth generation fighter will be worthless without pilots trained to employ it. Therefore, the USAF’s first priority for the F-35 should be high fidelity simulators to keep pilots trained. Additionally, he suggests, “put [ting] more and more of your force structure into the guard and reserve.”³¹ He purports that the only way around the looming fiscal problem is to rebalance the total force. “There’s another issue at play right now that goes way beyond the air force. If you look at the budget, personnel costs are consuming the defense budget. The all volunteer force at its current active duty size is unaffordable.”³²

Since the nation will remain engaged on an international scale even after the drawdown in Iraq and Afghanistan, General Fogleman suggests a programmatic solution to the USAFs modernization. Although significantly delayed, he believes the tanker is finally on track with the recent KC-46A contract. However, another asset to transition to the guard and reserve would be the C-17. He proposes that as we withdraw from Iraq and Afghanistan, there will be more C-17s than required in the active duty. “By and large, your mobility side of things is in pretty good shape. Or at least has a path, once you get this tanker thing going.”³³ However, there are other areas where the USAF needs to save money.

As for rescue modernization, General Fogleman recommends a cost savings fix of relying on current assets. “I understand the moral obligation to have this mission but I would have taken a pass on modernizing and insisted on some kind of a working document with

³⁰ Fogleman, Interview.

³¹ Fogleman, Interview.

³² Fogleman, Interview.

³³ Fogleman, Interview.

special operations.”³⁴ As someone who has ejected in combat, the general is one of the few remaining pilots to speak with such experience. He concludes that there is a way forward to balance the force, but the personnel costs are going to drive the USAF’s solutions. During his tenure as CSAF, General Fogleman dealt with fiscal constraints as well.

In 1994, the SECAF and CSAF commissioned two studies: New World Vistas and AF 2025. As General Fogleman explains, “I thought both studies were very useful. We don’t have any money, then maybe it’s time to think. It doesn’t cost a whole hell of a lot to think.”³⁵ In fact, fighter procurement was very small in the nineties. “There was no defined threat and we hadn’t moved to the capabilities based thing. So we felt comfortable that the force structure we had would see us through the foreseeable future.”³⁶

As General McPeak’s tenure was shaped by reorganization and it informed his opinions in many ways; General Fogleman’s term as chief was punctuated by personnel issues. These seemed to have a profound impact on his analysis of the future Air Force. General Fogleman was the only CSAF to focus on total force integration and the notion of saving money through downsizing the active force. Additionally, he is the only chief to highlight the sustainability issues of the F-35 after procurement. He differed from General McPeak on a separate space force, and he had the most progressive view on the qualifications for the role of CSAF. Perhaps his most notable difference from any chief is not requiring a separate asset for rescue operations.

³⁴ Fogleman, Interview.

³⁵ Fogleman, Interview.

³⁶ Fogleman, Interview.

Chapter 3

General Michael E. Ryan

The US Air Force has adopted the term “aerospace” to describe the medium within which its forces operate and has applied the term to those broad and enduring concepts that apply across the entire medium. The separate terms “air” and “space” continue to be used when describing those specific tasks, missions, or platforms that apply strictly to the air or space environment.

*General Michael E. Ryan
16TH Chief of Staff of the U.S. Air Force*

General Michael E. Ryan graduated from the Air Force Academy in 1965. He is the only CSAF whose father, General John D. Ryan, was also CSAF. The General is a graduate of Squadron Officer School, Fighter Weapons Instructor Course, Air Command and Staff College, National War College, and the National Security Program of the John F. Kennedy School of Government. He also holds a Master of Business Administration from Auburn University.¹

In addition to his extensive education, General Ryan has over 150 combat missions in the F-4 including 100 missions over North Vietnam. Most notably, he was commander of 16th Air Force and Allied Air Forces Southern Europe in Italy, where he directed the air combat operations during OPERATION Deliberate Force in the Balkans. As CSAF, he presented forces to EUCOM in support of OPERATION Allied Force. The general was also commander of U.S. Air Forces in Europe prior to his selection as the 16th CSAF.²

During his tenure, General Ryan finalized the force structure concept of the Air and Space Expeditionary Force (AEF) for the post Cold

¹ United States Air Force Biography of General Michael E. Ryan, Available from <http://www.af.mil/news/biographies/>.

² Ryan, Biography.

War USAF. This dramatic change was largely in response to high operations tempos and the need to provide stability to the force. Additionally, he championed Developing Aerospace Leaders (DAL), an educational initiative for 21st century USAF officers that built off the foundation of leadership development started by General Robert J. Dixon.³

Organize and Train

General Ryan admits that with any program in a bureaucracy, DAL developed a life of its own. The intent of the program was to get officers out of their career “stovepipes” defined by their Air Force Specialty Code (AFSC).⁴ DAL proposed the inauguration of a very careful and selective policy for moving people, normally right after they finish school, into jobs that would broaden their experience. He said the goal was to “systematically break the mold, to broaden folks so that when they become a colonel they have another experience other than just their tribe.”⁵ However, “It started moving in the direction that was too mechanical.”⁶ Although the USAF continues to attempt to broaden its officer corps, General Ryan leaves no room for doubt on the qualifications of the CSAF.

“They would have to be an officer, who had been exposed to the operational side of the Air Force, because remember that the chief wears two hats.”⁷ In addition to the administrative duties of organize, train, and equip, the CSAF is also a member of the Joint Chiefs of Staff whose primary function is to provide military advice to the President, SECDEF, and NSC. Noting that the advice usually relates to combat and the total force, General Ryan cautions, “the person has to be a very unique individual who has been in some very critical situations where they were

³ Ryan, Biography.

⁴ Michael E. Ryan, Personal Interview, March 2011.

⁵ Ryan, Interview.

⁶ Ryan, Interview.

⁷ Ryan, Interview.

intimately involved in operations, because that is what is normally lacking on the non-rated side. I include in that at least simulated combat operations, if not combat operations.”⁸

Within current combat operations, General Ryan believes that we are building the trust and confidence between our sister services necessary for selection to GCC command positions. He also agrees that the first step is to place our most capable officers in joint positions to foster trust “between our battle buddies in our land forces and naval forces, to show them USAF officers can do these jobs.”⁹ In his estimation, experience and trust will groom somebody to be a regional commander. He concludes, “Maybe coming out of these current wars, some very cemented relationships have occurred between our Air Force guys and our battle buddies, and there’s a recognition that an Air Force guy can do those jobs at least as easy as a Navy guy for sure.”¹⁰

Current operations in Afghanistan and Iraq also highlight the combat organization of the USAF and its presentation of forces to the GCC. During General Ryan’s tenure as CSAF in the recovery of Kosovo operations, the USAF implemented the second major organizational change of the nineties. Building on General McPeak’s administrative reorganization, General Ryan saw a need for an expeditionary reorganization. His goal was an expeditionary force similar to the Navy’s Carrier Battle Group and the Marine Expeditionary Force.¹¹ His intent was to move the USAF out of the Cold War and into the new millennium. General Ryan noted, “There was no rhythm to how we were deploying. I was terribly interested in getting our Air Force into a rhythm, a flow. We would also define what our Air Force was with ten AEFs. I wanted to

⁸ Ryan, Interview.

⁹ Ryan, Interview.

¹⁰ Ryan, Interview.

¹¹ Ryan, Interview.

make the whole Air Force an AEF.”¹² Ultimately, the AEF construct did two important things; it helped allay the burden of high operations tempos on the force and provided a framework to organize the force in an expeditionary world.

For the larger organizational question surrounding the separation of air and space, General Ryan’s response is “that is like asking the Navy whether submarines should be a separate service.”¹³ Differing from General McPeak on a separate space force and General Fogleman on the eventual shift in priorities from air to space, he raises two areas of concern. The space portion of the USAF does limited missions that are mainly support to all the services. In addition, the National Reconnaissance Office (NRO) operates other missions in space separate from the USAF but just as vital to military operations.

In General Ryan’s words, “It is critical to note exactly what Air Force Space does? You have to look at what they do first, and what they actually do is fairly limited. They do communications. They do weather. They launch and provide care and feeding to navigation, and they execute some other classified missions.”¹⁴ He notes that all of the above missions are intimately involved with providing services to all branches of the Armed Forces; and most notably, “I think it is important that the space part of our Air Force is integrated with what the rest of the Air Force does, so that they can better provide support to the other services.”¹⁵ Additionally, the NRO and the USAF have different space missions, and to separate USAF space without combining it with the NRO would be a mistake.¹⁶ However, General Ryan warns these issues pale in comparison to the looming budget crisis.

¹² Ryan, Interview.

¹³ Ryan, Interview.

¹⁴ Ryan, Interview.

¹⁵ Ryan, Interview.

¹⁶ Ryan, Interview.

Chairman of the Joint Chiefs of Staff, Admiral Mike Mullen recently stated, “The national debt is the biggest threat to our national security.”¹⁷ General Ryan agrees that it could potentially lead to an economic disaster, and the first solution to cutting the budget will be discretionary spending. Mandatory and discretionary spending are the two forms of annual spending for the United States. Mandatory spending comprises two-thirds of the budget and includes mostly entitlements. Discretionary spending covers one-third of the budget. Within discretionary spending, DOD’s budget is approximately half. Since politicians are reluctant to cut entitlements, General Ryan sees a lean period in the USAF’s future and some difficult tradeoffs between readiness, infrastructure, and modernization.¹⁸

Equip and Sustain

General Ryan also thinks force structure procurement has reached a balance. He stated, “We’ve probably gone down the ISR road as far as we need to go. I think you will see it swinging back the other way. When you look at what is going on in the Maghreb across North Africa. When you look at what is going on in China and Iran and where they are going. I think you’re going to see, and I even hear Gates saying we need to concentrate back on the fundamentals.”¹⁹ He also stresses the deterrent piece in how you posture the force, to prevent having to fight it.

This presents a tension between the SECDEF and the service chief. Although service chiefs are involved with current operations and providing forces, they must also focus on the future. General Ryan summarizes the dichotomy best:

The SECDEF is judged on what happened during his watch, not what happens ten years from now. Chiefs are judged on what’s going to happen ten years from now. And it’s their

¹⁷Admiral Mike Mullen, CNN interview with the Chairman of the Joint Chiefs of Staff. Aug 2010.

¹⁸ Ryan, Interview.

¹⁹ Ryan, Interview.

job to make sure the force is ready for the next fight, even though we have no idea what the next one's going to be about. That is why you have to have a balanced force. Because no one would have predicted a wall would come down or we would be in Afghanistan after the Russians. Nobody is very good at prognosticating where the next war is going to occur. No one has been good at that ever. Therefore, what you have to do is arm a force across the spectrum of conflict for the most probable things that will occur and hope that you can take care of the improbable.²⁰

Another area of concern for General Ryan is acquisitions. He attributes the current failure of the acquisition process to three things: a systemic problem, an expertise problem, and a problem with the law.²¹ The systemic problem addresses the divide between requirements and acquisitions. General Ryan's solution is to ensure clear communications between operators and acquisitions personnel. He states, "Tradeoffs must occur so you don't end up with these big overruns where the operators are over here asking for the world, and the contractor is trying to deliver it and the thing gets out of shape."²²

The shortage of expertise is a long-term problem that occurred due to the force drawdown in the nineties. General Ryan contends that it takes 20 years to build an acquisitions expert and unfortunately "during my watch we were under the gun to bring the force down and since we weren't buying anything at the time, we took down acquisitions further than we should have."²³ Finally, the third dilemma in acquisition reform is the law. The separation of power that resulted from the Goldwater-Nichols Department of Defense Reorganization Act of 1986 was ill conceived according to

²⁰ Ryan, Interview.

²¹ Ryan, Interview.

²² Ryan, Interview.

²³ Ryan, Interview.

General Ryan.²⁴ He adds, “How do you incentivize industry to not try and low bid to get the job and then have these overruns, additions and breaches of Nunn McCurdy that seem to occur in every program that we’ve ever had?”²⁵

From a requirements perspective, as CSAF there were times that General Ryan had direct involvement. For example, in the development of the Joint Strike Fighter, some people wanted to eliminate the internal gun. General Ryan recalls, “They said they want to take the gun out, and I said no way.”²⁶ It had nothing to do with the fact that fighter aircraft should have guns; General Ryan wanted to save the space because he saw the potential for a directed energy weapon in the future.²⁷ The internal gun is necessary for current operations and provides a place for future growth. Based on the expected lifespan of the F-35, this was an innovative and prudent decision.

Discussing the procurement of the F-22, General Ryan stated, “I did my utmost to convince Congress that the F-22 was a needed airplane, and I think we will rue the day we went down to 187; we should have gone onto 381.”²⁸ His rationale was that the fighter force needs depth that the F-35 cannot currently provide. He contends that the F-22 possesses a unique capability against anti-access/area-denial (A2/AD) tactics that is necessary for air dominance. However, he concludes, “I

²⁴ Ryan, Interview.

²⁵ Ryan, Interview. The Nunn-McCurdy amendment to the 1982 Defense Authorization Act was designed to address cost overruns in DOD weapons systems procurement. It requires a report to Congress when a program reaches a 15% cost growth and cancellation of the program at 25%. Most notably, Future Combat System and the Expeditionary Fighting Vehicle were two programs that were cancelled. Additionally, the Joint Strike Fighter breached Nunn-McCurdy, and it is the subject of heavy Congressional scrutiny.

²⁶ Ryan, Interview.

²⁷ Ryan, Interview.

²⁸ Ryan, Interview.

don't know what else we could have done, and we even had a chief and a secretary fall on their sword for it.”²⁹

The F-35 certainly has a broader appeal because it is not a single service aircraft. It is advocated by the Navy reluctantly, the Marine Corps enthusiastically, and has multiple export contracts, including one with the UK. Still, the General surmises, “We’ll probably have overruns that will get the unit cost up to at least the F-22 cost. However, with the kinds of wars we were fighting, Gates made the decision that it was not contributing to the kind of wars that he wanted to fight. So, he cut it; and it’s a shame because those are precious airplanes.”³⁰

General Ryan also envisions a drawdown in force that will alleviate the delay of fielding the F-35. Yet he maintains that F-15s and F-16s will slip to maintain a viable tactical fighter force: “We’ll slip them and keep them flying until we can incrementally bring the force down and replace them with the F-35.”³¹ He also sees a drastic reduction in the current planned buy of 1776 aircraft. UAV procurement is another area that General Ryan surmises has reached a stasis.

“The benchmark was 65 Orbits. I think we’re going to be there in 2013, and that’s probably enough until we see what’s the next need. I think we’re about topped off.”³² He recommends analyzing how many UAVs the force requires after operations conclude in Afghanistan. He highlights the UAV benefits of endurance and utility in multiple missions such as humanitarian operations and border patrol missions. Finally, he urges continued innovation through technologies that allow for flight times of days or even years.³³ Beyond innovation, General Ryan has a few priorities for the modernizations of the USAF.

²⁹ Ryan, Interview.

³⁰ Ryan, Interview.

³¹ Ryan, Interview.

³² Ryan, Interview.

³³ Ryan, Interview.

His first priority for modernization is Combat Search and Rescue. Although, this will actually be a recapitalization package added to the HH-60G Pave Hawk, General Ryan says we cannot afford to delay.³⁴ The General is adamant on the need for a dedicated rescue force and the equipment necessary to accomplish the mission. He stated, “It is a commander’s promise to the force. You go down; we will try to get you.”³⁵ Additionally he adds that CSAR assets are not only doing CSAR, they are also accomplishing personnel recovery, medical evacuation, and in some cases infiltration/exfiltration missions.³⁶

His justification also lies in personal experience as the air component commander during Operation Deliberate Force. Although special operations forces execute rescue missions, they do not train to the mission and it is not part of their planning cycle. General Ryan recalls, “I have some history with this, special operations guys go into their cocoon and plan for four days, and then they’ll come out and take the least resistance into insert. When you ask them to do an ad hoc mission, which occurs because somebody got shot down in a really bad place, and we want to go back in there within 12 hours, that’s not how they do business. Though we’ve used them to do it, and they do it well when you force them out of their cocoon.”³⁷

Furthermore, the complexity of the mission demands professionals that train in this environment. In fact, the helicopter is the last part of the equation in a rescue mission. Certainly, they integrate with many other assets necessary for mission accomplishment. General Ryan maintains, “The integration of the rescue forces with the rest of the force is the most complicated mission you do, because it’s time sensitive. There is command and control. You need gas. You have to reset the

³⁴ Department of the Air Force, *Fiscal Year 2009 Air Force Posture Statement*, May 2009.

³⁵ Ryan, Interview.

³⁶ Department of the Air Force, *Fiscal Year 2009 Air Force Posture Statement*, May 2009.

³⁷ Ryan, Interview.

force and divert. There are just so many other things going on. It is something that a lot of civilians just don't understand."³⁸

After modernizing the CSAR force, long-range strike is General Ryan's second priority. This also includes the technologies and supporting systems necessary to allow the next generation bomber to penetrate modern integrated defense systems. He contends that the USAF's lift and tanker forces are in good shape. Although the space assets are unprotected, the current requirement for modernization is also adequate. In fact, General Ryan's outlook is optimistic; "I think we're pretty balanced, and it occurs like that. You modernize the fighter force, then you work on the airlift and so on."³⁹

In conclusion, maintaining a balanced force is General Ryan's utmost priority for future USAF leaders.

You have to maintain a balance. You have no idea what's going to happen next or where. The world is such an unpredictable place that trying to codify what is going to happen in the future is futile. So, you have to look at the most probable and the most hurtful. What is the most dangerous and what is the most probable, and they may not be the same thing. But, you have to cover both. You also have to lend yourself to deterrence as much as you do to the war fighting side. So you have to keep your triad viable, and your space assets functioning and useful; you can't scrimp anywhere. You can shrink, but you cannot say we are not going to do something. Whether it's airlift or tanking or GPS, you have to be able to do it all. Balance, Balance, Balance.⁴⁰

Indeed, General Ryan is the first CSAF to highlight the absolute necessity for balance in the force. His tenure endured one of the leanest fiscal periods in USAF history and it certainly informs his opinion on trade-offs to maintain balance. Similar to General McPeak, his AEF framework was a transformational

³⁸ Ryan, Interview.

³⁹ Ryan, Interview.

⁴⁰ Ryan, Interview.

reorganization of the USAF. Perhaps his most notable disagreement with the earlier Chiefs is over the separation of air and space. Under the current construct, General Ryan leaves no room for a separate space force. Finally, he highlights the looming economic crisis in the United States and the impact it will have on USAF officer's decision analysis.



Chapter 4

General John P. Jumper

The nature of war has changed and so has the Air Force. Although our fundamental beliefs remain sound, the evolution of contingency operations, the rapid maturation of space and information warfare, and the leveraging power of information technology have transformed the effectiveness of air and space power.

*General John P. Jumper
17TH Chief of Staff of the U.S. Air Force*

General John P. Jumper, by an odd twist of fate, led the USAF into the Global War on Terror from the very day it began—11 September 2001. He was a distinguished graduate of Virginia Military Institute's ROTC program in 1966. He is a graduate of Fighter Weapons School, Squadron Officer School, Air Command and Staff College, and National War College. He also holds a Master of Business Administration from Golden Gate University.¹

After Pilot Training, General Jumper flew two combat tours in Vietnam in the C-7 Caribou and F-4 Phantom II. Additionally, he served with future Generals Richard Myers and Ronald Keys as an instructor at the USAF Fighter Weapons School. His notable staff assignments include Deputy Chief of Staff for Air and Space Operations, Special Assistant to the Chief of Staff for Roles and Missions, and Senior Military Assistant to Secretaries of Defense Dick Cheney and Les Aspin.²

Prior to his selection as CSAF, General Jumper commanded a squadron, two wings, a numbered Air Force, and two Major Commands. He was commander of U.S. Central Command Air Forces during operations Northern and Southern Watch, and the commander of U.S.

¹ United States Air Force Biography of General John P. Jumper, Available from <http://www.af.mil/news/biographies/>.

² Jumper, Biography.

Air Forces in Europe during Operation Allied Force. As CSAF, he presented forces to General Tommy Franks' Central Command for operations Enduring Freedom and Iraqi Freedom.³

Organize and Train

General Jumper is remembered for many things, but his interest in developing and educating the force was one of his trademarks. In November 2002, General Jumper released his Chief's Sight Picture on Total Force Development to the USAF. Building on the DAL initiative that General Ryan undertook, Force Development's goal was to transition the way the USAF trains, educates, promotes, and assigns its personnel.⁴ In theory, the plan was to build expertise, broaden experience, and streamline educational opportunities. One of the goals was to eliminate "Square Filling" degrees while providing relevant Advanced Academic Degrees (AADs) that fit the needs of the Air Force.

General Jumper recalls going to night school to attain a Master's degree that bore no relevance to his career or professional development. "I was going to school three nights a week while working twelve hour days and all for a degree that filled a square."⁵ His goal was to "force the personnel system to find the true differentiators based on performance."⁶ Despite these aspirations, he concludes that "the system that we have now is convenient for the personnel guys; it's convenient for the boards because we don't know how to differentiate otherwise. We are in a habit now of making things easy on the personnel system rather than who the personnel system serves."⁷

Although Force Development has even made it into USAF doctrine, Air Force Doctrine Document (AFDD) 1-1 Leadership and Force Development, there were areas of General Jumper's initiative that ended

³ Jumper, Biography.

⁴ John P. Jumper, Chief's Sight Picture: Total Force Development. Nov 2002.

⁵ John P. Jumper, Personal Interview, March 2011.

⁶ Jumper, Interview.

⁷ Jumper, Interview.

with the path of least resistance. General Jumper champions Professional Military Education (PME). Indeed, faculty at Air Command and Staff College remember him as the CSAF who took the greatest and most detailed interest in the curriculum, and who backed up that interest by providing the necessary resources.⁸ However, he is frustrated with the inconsistency between USAF officer career fields and their AAD. He feels that if the USAF invest in an officer's degree, it should be relevant to that officer's career field. Unfortunately, the personnel system does not make that distinction. Therefore, officers pursue AADs that are expedient and satisfy the promotion requirement.

Certainly, Force Development is a work in progress, a version of the "Life Long Learning" concept prevalent in adult education. It conveys a great message: "Force development is a series of experiences and challenges, combined with education and training opportunities that are directed at producing Airmen who possess the requisite skills, knowledge, experience, and motivation to lead and execute the full spectrum of Air."⁹ However, the Air Force continues to maintain institutional barriers such as performance reports, which hinder full implementation of the concept. General Jumper also sees a dogmatic attitude in the way Air Force personnel view each other. He recommends a contemporary view of USAF officers that values warrior attributes, not wings.

In his discussion of the type of officer required for CSAF, General Jumper states, "The qualification for a Chief is that they have to come from the warrior class; they have to have warrior credentials and have experience fighting wars. To me, that's the imperative."¹⁰ He contends that the Air Force must create "new citizens" that move away from the

⁸ Conversations with current School for Advanced Air and Space Studies professors Dr. Jim Forsyth and Dr. Rich Muller, both of which were professors at the Air Command and Staff College during General Jumper's tenure.

⁹ AFDD 1-1, Total Force Development, April 2007.

¹⁰ Jumper, Interview.

old construct of rated equals warrior. To illustrate, he proposes that a UAV operator is a warrior just like a pilot and the USAF needs to stop creating second-class citizens. However, he is adamant that the top leader must still have warrior credentials.

Perhaps General Jumper's view of future air operations informs his opinion. He champions integration and persistence in a capabilities based approach. Future warriors will deal with "coordination, integration, battle management, sensory reading; a whole dose of other skills that are compatible with the world today."¹¹ This vision is quite removed from the solitary fighter pilot of yore. He envisions that technology and integrated networks will transform how warriors conduct air operations. "We have to think in terms of integration where the cursor is over the target, and we are indifferent to how we got there."¹² Indeed, General Jumper's Global Strike Task Force (GSTF) concept highlights his ideas on future air operations.

GSTF is "a rapid-reaction, leading-edge, power-projection concept that will deliver massive around-the-clock firepower. It will mass effects early, from longer ranges, and with more precision than our current capabilities and methods of employment."¹³ He believes that future combat operations will heavily involve the Navy and the Air Force and will require a focus on the global reach and global power qualities of airpower. "We can't do it by strictly advocating for one platform or one program. You have to do it in a balanced way to tell the strategic story of the benefits of air power."¹⁴ Additionally, he is adamant that air power leaves no room for distinction between air and space.

¹¹ Jumper, Interview.

¹² Jumper, Interview.

¹³ John P. Jumper, Global Strike Task Force: A Transforming Concept, Forged by Experience, *Aerospace Power Journal*, Spring 2001.

¹⁴ Jumper, Interview.

In his words, “I think drawing lines in a vertical dimension is as unproductive as drawing lines in the horizontal dimension.”¹⁵ Unlike the horizontal battle space, where ground commanders deal with inviolable boundaries that define their Area of Operations (AO), the vertical dimension is boundless. Thus, air power is uniquely suited for centralized control and decentralized execution. Dividing the vertical space only limits flexibility. Below 65,000 feet, internal combustion operations are sustainable; and low earth orbit is attainable above 300 kilometers. General Jumper suggests a way to bridge this “near space” gap that fully utilizes the vertical dimension.¹⁶

His example calls for a persistent technology that has a loiter capability of months instead of days. He suggests, “This is the way we should be thinking about exploiting the vertical dimension. You could substitute for whole orbiting satellite constellations with...persistent coverage.”¹⁷ Indeed, this would replace the currently unprotected space assets that are vital to U.S. military operations with a less costly, redundant alternative.

General Jumper thinks this integration is only possible in an environment “with as few titanium stove pipes as we can muster.” He also sees this as a big step integrating space operators into the warrior class. “I don’t think space will be a separate service...it is a functional area. But if you keep them in the Air Force and you make this guy able to integrate vertically and be in touch with the war fighting aspects of space then I think eventually space absorbs cyber, and you could have a chief like that, absolutely.”¹⁸ In addition to unnecessary stovepipes, he warns of looming fiscal constraints and a need for a capabilities based acquisition system in the future.

¹⁵ Jumper, Interview.

¹⁶ Near Space is a term that General Lance Lord coined. Jumper, Interview.

¹⁷ Jumper, Interview.

¹⁸ Jumper, Interview.

Equip and Sustain

Although General Jumper feels the Air Force needs to move away from procuring specific platforms, he continues to advocate a strong Air Force with next generation capabilities. He is quick to point out our inability to predict the nature of the future fight. Indeed, in 1988, notorious villains such as Slobodan Milosevic, Osama bin Laden, and Saddam Hussein were barely blips on the United States' radar. However, two years later these three men were shaping the next twenty years of U.S. foreign policy. He brings up the nature of current operations in Libya, Operation Odyssey Dawn, to prove his point: "Who do you think is going to be called in Libya? Do you think Predators are going to be doing it? We will put up 150 airplanes there, while everybody back here in Washington is talking about the irrelevance of aircraft. We are lousy predictors. Look at what every nation in world is trying to do. They are trying to build their air forces. The Chinese, the Indians, the Pakistanis, everybody is trying to build up their air force."¹⁹ Nevertheless, the USAF must revamp its acquisitions process if it is to retain its technological edge.

General Jumper's focus for acquisitions and how the USAF thinks about fighting is a return to a Concept of Operations (CONOPS) approach. His notion of a Global Strike Task Force integrates technologies such as stealth platforms, all-weather precision-guided munitions (PGM), and UAVs to provide a synergistic capability to a commander. In the emerging era of networked warfare, integration of technologies provides better support to the COCOM. Indeed, General Jumper believes this mindset should drive how we equip and fight. He states, "CONOPS leads the acquisition process by forcing us to decide how we are going to fight before we decide what we are going to buy to

¹⁹ Jumper, Interview.

fight.”²⁰ Even with the recent cancellation of the Army’s Future Combat System, General Jumper touts the Army’s attempt to integrate as an example of how it should be done.

The system of systems, networked approach represents the future of war fighting. The Cold War mentality of buying a single platform and developing it in response to emerging threats is too costly. He suggests, “We have got to get to a CONOPS based acquisition program that focuses more on integrating stuff we already have than it does on new starts and new platforms. We need to get out of our platform-centric mind set and get into more of an integrating mind set.”²¹ However, the service budgets do not incentivize integration; but just as necessity precedes invention, the ominous budget crunch may drive the General’s suggestion. The number one priority for his CONOPS based acquisition process is long-range strike.

It is apparent that the General avoids the term Next Generation Bomber (NGB). He states, “Long-range strike is the top priority. It needs to be an air force mission and needs to be zealously claimed as an air force mission; and we need to put everything that we have against making this a success.”²² He recommends the first step is looking for ways to integrate advantages and platforms that already exist. It is too expensive to field single platforms for single missions.

If the USAF sought to replace the B-52 or the B-2 with another platform, the current acquisition trend would develop an unaffordable solution. General Jumper says, “A platform-centric model says we want to build a bomber able to penetrate the deep dark crevices of the most contested air space all by itself, wreak devastation and return, and all it needs is a tanker to get it there. The problem is that if it becomes a platform-centric acquisition, it has no chance of success. The nation

²⁰ Jumper, Interview.

²¹ Jumper, Interview.

²² Jumper, Interview.

cannot afford that platform.”²³ Even so, the USAF cannot neglect the long-range strike capability.

The deterrent aspect alone is reason enough to maintain this capability. General Jumper contends, “The context for long-range strike is the ability to create uncertainty in the minds of your potential adversaries. I can come and get you anywhere you are and there is nothing you can do. This sort of thing is unbelievably leveraging.”²⁴ Certainly, the reaction in the Pacific when the USAF deploys B-2s and F-22s to Guam supports this claim. Furthermore, it maintains options for the USAF that are necessary for national defense. General Jumper states the last response you want to give the president when he asks for options is, “Well, sir, I got 65 Predator orbits, because that’s what we bought.”²⁵ A CONOPS approach will highlight this imbalance and force the joint community to identify the necessary systems required for future wars.

In addition to long-range strike, General Jumper thinks the tanker is finally on track after unnecessary delays. Although Congress imposed the tanker lease on the Air Force, General Jumper regrets the outcome. He states, “We would have tankers on the ramp today. The first delivery was going to be 2005. Now the first delivery will be 2017 and instead of paying 125 million dollars, we’re going to pay probably 200 million.”²⁶ In concept, leveraging the commercial industry would have saved DOD money, but in practice ended up being a costly lesson. Nevertheless, the tanker and lift forces have a path for the future.

Finally, to give the Air Force the balance it needs for the 21st century, General Jumper recommends a new rescue asset and leveraging portions of the fighter force for additional capabilities. He sees a need for

²³ Jumper, Interview.

²⁴ Jumper, Interview.

²⁵ Jumper, Interview.

²⁶ Jumper, Interview.

a new helicopter that will perform CSAR as well as other mission sets. General Jumper asserts the new helicopter should be able to perform humanitarian assistance/disaster relief (HA/DR), heavy lift, troop transport, and armed missions, which the HH-60 is incapable.²⁷ Additionally, the Air Force should adjust the F-35 buy to free up funds for other balancing efforts.

Although the final number for F-35 procurement is set to keep the unit price stable for export to allies, General Jumper believes the Air Force should reduce this by five hundred. Additionally, there should not be a one-for-one swap between the F-16 and the F-35. He proposes applying the savings to technology that reduces personnel requirements. For example, “We could go into the Air Operations Center (AOC) where we are four times over manned and technology would allow us to save thousands of people. We could be doing what we’re doing now in AOCs that have two or three thousand people with only 125 people.”²⁸ He envisions the floor of the AOC run like crew positions on an Airborne Warning and Control System (AWACS). He sees the AOC as the future weapons system that will integrate and leverage airpower for the joint commander. AOC operators will become battle managers similar to his UAV operator concept. It would also advance the highly technical network-centric concept that General Jumper deems necessary for the future.

Consistent with his predecessors, fiscal constraints inundate General Jumper’s thought process. Building on General Ryan’s expeditionary forces, General Jumper introduces a Global Strike Task Force concept that leverages airpower capabilities for a synergistic result. His idea of a CONOPS based approach complements this concept and seeks to maximize future warfighting capabilities. Additionally, General

²⁷ Jumper, Interview.

²⁸ Jumper, Interview.

Jumper's proposal to create "new citizens" in the Air Force highlights the warrior construct for network-centric operators.



Chapter 5

General T. Michael Moseley

Rising to the 21st century challenge is not a choice. It is our responsibility to bequeath a dominant Air Force to America's joint team that will follow us in service to the nation.

*General T. Michael "Buzz" Moseley
18TH Chief of Staff of the U.S. Air Force*

General Moseley entered the Air Force in 1971 after graduating from Texas A&M University. He is a graduate of Squadron Officer School, the Fighter Weapons Instructor Course, Air Command and Staff College, Joint Senior Battle Commander's Course, National War College, and the Combined Force Air Component Commander Course. He holds a Master of Arts degree in political science from Texas A&M.¹

General Moseley's staff assignments include Director for Legislative Liaison for the Secretary of the Air Force; Deputy Director for Politico-Military Affairs for Asia/Pacific and Middle East, the Joint Chiefs of Staff; Chief of the Air Force General Officer Matters Office; Chief of Staff of the Air Force Chair and Professor of Joint and Combined Warfare at the National War College; and Chief of the Tactical Fighter Branch, Headquarters U.S. Air Force.²

He has commanded the F-15 Division of the USAF Fighter Weapons School, the 33rd Operations Group, and the 57th Wing. Additionally, General Moseley was the combat Director of Operations for Joint Task Force-Southwest Asia and commanded 9th Air Force and U.S. Central Command Air Forces. In those roles, he served as Combined Forces Air Component Commander for operations Southern Watch,

¹ United States Air Force Biography of General T. Michael Moseley, Available from <http://www.af.mil/news/biographies/>.

² Moseley, Biography.

Enduring Freedom and Iraqi Freedom. Prior to assuming command as the 18th CSAF, he was General Jumper's Vice Chief of Staff.³

Organize and Train

Consistent with his predecessors, General Moseley feels strongly about officer development. However, he has a unique perspective as the USAF's most recent air component commander during major combat operations. Indeed, the USAF has very few traditional "blue suiters" that have led Air Forces in combat. Lieutenant General "Chuck" Horner was the first Air Force officer without an Army beginning to lead in major combat operations during the first Gulf War. Lieutenant General Michael Short was the second during Operation Allied Force; and General Moseley is only the third to have grown up entirely in the USAF to lead Air Forces in major theater war.

In his own words, "I think there are several legs to the school of officer development; but the first leg, the primary leg, is combat competency."⁴ In fact, General Moseley recalls that the origin of modern officer development began with former Tactical Air Command (TAC) commander, General Robert J. Dixon. Out of the poor aerial combat experience of Vietnam, the USAF under the guidance of Colonel Richard "Moody" Suter established Red Flag in 1975 as the world's premier air combat training exercise.⁵ Backed by General Charles A. Gabriel, the 11th CSAF, General Dixon and Colonel Suter ushered in an age of aerial competency that reflects the modern USAF. As a personnel officer, General Dixon also stressed the importance of academic degrees.

Indeed, combat competency established the aura that surrounds the USAF today. The combination of highly experienced operators with innovative technology allows the USAF to remain unmatched. Although it is one-half of the professional development equation, it is largely

³ Moseley, Biography.

⁴ T. Michael Moseley, Personal Interview, May 2011.

⁵ Moseley, Interview.

expected and taken for granted. There is, however, division among the former CSAFs on the value of advanced academic degrees and professional military education. By unmasking advanced academic degrees in 2007, General Moseley reversed the previous CSAF's direction and signaled the USAF will continue to use success in higher education as a differentiator.

The objective of professional development remains to prepare airman for the defense of the republic. General Moseley contends, "It is to prepare an officer or an enlisted kid to be able to think, to write, to articulate an argument and to be able to, with all of the intellectual honesty that you can bring to bear, understand the problems that they are presented and offer solutions."⁶ He places great value on the ability of an airman to articulate an argument and present sound options for whatever problems that occur. The utility of an advanced degree "sets the stage for much more regimented and disciplined thinking."⁷ He is also adamant that Air University has a vital role.

General Moseley believes that Air University has to become more contemporary to adapt to modern warfare and more vigorously advocate airpower. He expresses frustration with the growing trend among airmen to take a subservient role in planning and execution to that of other services.

I found it very frustrating after commanding in Afghanistan and Iraq to come back to Maxwell and hear people say, the Army plans a lot better than us. Let's let those guys do that and we'll just fall in on them. My feeling was, that is not good enough. The air, space, and cyber campaign have to be equally regimented in thinking through complex problems and the integration of complex problems. The faculty has to embrace that. This notion of beating the Air Force up from inside the Air Force was unfair to me and it still is, by the way.⁸

⁶ Moseley, Interview.

⁷ Moseley, Interview.

⁸ Moseley, Interview.

Combat competency is also a common theme for every Chief and powerfully shapes their opinion on the type of officer required for the position of CSAF. General Moseley is no exception. Certainly, Title 10 outlines the obligations of the Chief; and General Moseley believes the mission is central to the duties of the Chief. He also warns against selecting a CSAF just to break a mold or make a point. He states, “The mission of the United States Air Force is not to protect functional personnel stovepipes. The mission of the United States Air Force is not to make people feel good about themselves. The mission of the United States Air Force is to fly and fight. That could be a satellite, a manned aircraft, an unmanned aircraft.”⁹ Indeed, terms such as “fighter mafia” and “bomber barons” are divisive and cause a loss of focus on the mission.

General Moseley does not delineate between functional backgrounds. He contends, “Not all fighter pilots could be Chief, not all bomber pilots could be Chief, not all space and mobility guys should be rejected. And I think you never want to say you have to fly airplanes to be the Chief, nor do you want to say that every single officer in the Air Force is qualified to be the Chief because neither one of those are necessarily true.”¹⁰ This is also congruent with the views of the other Chiefs. He further contends that every aspect of organize, train, and equip should be focused on combat.

Since 1947, the USAF has struggled with organization. From the initial “Hobson Plan” that organized the USAF around the “Wing” structure to the “Objective Wing” of the nineties and the “Combat Wing” of today, the USAF has struggled with how best to organize.¹¹ General

⁹ Moseley, Interview.

¹⁰ Moseley, Interview.

¹¹ Walter J. Boyne. *Beyond the Wild Blue: A History of the United States Air Force, 1947-2007*, (New York: St. Martin's Press), 2007.

Moseley's solution is to organize according to how we fight. He asserts, "I can't perceive a benefit of having two kinds of organizations, a peacetime organization and a wartime organization. Our business is not to make people feel good, our business is to fight and win our country's wars."¹² Again, he is alluding to the notion that functional stovepipes detract from the mission. This idea is also foundational to his views on space and cyber power.

The only chief among those interviewed to advocate a separate Space service is General McPeak. Although each chief's justifications vary, General Moseley provides a philosophical explanation:

As long as the space activities that we have functioning in this country, specifically in the United States Air Force, since we have a preponderance of it, as long as they are focused on activities in the atmosphere and on the surface, effectively looking down, then that is a part of the United States Air Force and the joint community. The point at which we start looking out and using space as a vehicle or a threshold or a platform to go out of the atmosphere and go do something else, at that point it becomes a reasonable discussion.¹³

He contends that this is different from the airmen of the 1930s advocating a separate USAF. As long as space activities directly support activities in the atmosphere and on the surface, Space should remain part of the USAF. Additionally, he believes the USAF needs a concerted effort regarding Cyberspace.

Although he does not address a separate Cyber service, General Moseley is adamant about the USAF pursuing competencies to operate in this strategic commons. He recommends career paths, professional training, and combat organizations that focus on operations in cyberspace. The current framework of the National Security Agency (NSA) is inadequate. General Moseley states, "The NSA should be actively involved, but it is not even a joint command. I think there should be a

¹² Moseley, Interview.

¹³ Moseley, Interview.

cadre of people, officers and enlisted with the competencies to operate in that domain. That was a big deal for me, to be able to articulate the notion that the Air Force should be able to organize itself into units that focus on that particular area.”¹⁴ Additionally, since cyberspace is a manufactured domain that crosses every service, joint operations are critical.

General Moseley believes the USAF should focus on the strategic commons and building competencies within those domains. As the United States struggles with cyberspace operations, the USAF should organize and train to dominate in cyberspace. Indeed, an infantry company, guided missile destroyer, and fighter squadron are not inherently joint; integration occurs with proper employment of each of these assets. General Moseley recommends developing the same tactical proficiency for cyber operations; “I reject the notion that you can be born joint. I think you can become joint with a foundation of competencies in planned component activities.”¹⁵ He also believes this is foundational for combatant command.

Similar to the practice by which the Joint Force Air Component Commander (JFACC) originates from the service with the preponderance of forces, combatant commanders are chosen for the quantity and quality of their expertise and its relevance to the situation at hand. General Moseley contends that an Air Force officer is just as qualified as an Army or Navy officer to lead a COCOM. He advocates an active role for the CSAF in placing qualified officers in joint positions, but equates the lack of current GCC positions to the nature of current combat operations. “It’s just the reality of the challenges that face a particular point in time. If most of your combatant issues in a theatre are land component related then you are going to see a higher number of Army and Marine guys.”¹⁶

¹⁴ Moseley, Interview.

¹⁵ Moseley, Interview.

¹⁶ Moseley, Interview.

However, he warns that this should not change how the force is postured.

At the turn of the last century, the British Empire fought the Second Boer War in South Africa. Similar to what the US now faces in Afghanistan, as the war progressed, traditional British conventional forces increasingly faced an enemy who adopted guerrilla warfare. Ultimately, the Brits organized, trained, and equipped their forces for this type of warfare; and General Moseley contends they were not as prepared for WWI as a result.¹⁷ Furthermore, “This notion of being extremely happy over small UAVs, AT-6s and RC-12s at the expense of a full spectrum capability is a very dangerous place to be.”¹⁸ In addition to preparedness, he says, “The other part that makes this worse is when you spend your time and money on AT-6s and RC-12s at the exclusion of fifth generation systems, you now lose whatever advantage you had in deterring or dissuading or shaping events on a global scale.” Certainly, these capabilities are necessary, but the uncertainties of the world require a broader focus.

General Moseley cautions there are other consequences to not procuring high-end capabilities. The USAF must not make the mistake of thinking it knows the future. Indeed, the opponent gets to choose how it engages the United States. With the proliferation of Russian and Chinese equipment, potential adversaries are only limited by their funding. If the United States continues to act globally, then the military must maintain the latest and most reliable equipment. General Moseley states,

Here is another thought for you on why fifth generation systems are required. The United States has to be able to operate anywhere on the surface and anywhere in the atmosphere, anywhere on a global stage; so if you're not prepared to do that then it degrades the President's ability to

¹⁷ Moseley, Interview.

¹⁸ Moseley, Interview.

deter or dissuade or to shape. The immediate consequence of that is now an American President is dissuaded. The unintended consequences of killing programs like the F-22 and the bomber and the tanker are you immediately begin to limit yourself operationally within a short period. You become the one shaped, deterred, or dissuaded.¹⁹

Additionally, the nation loses the technical advantage that has existed since 1945. He also warns that Remotely Piloted Aircraft (RPA) procurement is another area of misplaced priorities that lend to an imbalance in force structure.

Indeed, every CSAF has alluded to the ramifications of an unbalanced RPA force. General Moseley asserts the acquisition is “out of balance relative to the other competencies that you need to conduct full spectrum ops.”²⁰ He mentions systems such as the S-300 Surface-to-Air Missile (SAM) and Sukhoi fighters that deny the permissive environment necessary for RPAs to operate, a further warning of too much focus on COIN and CT operations. Finally, General Moseley identifies several other future consequences that pertain to RPA procurement.

Regarding the rapid requirement of RPA orbits, he states, “Gates and his guys have become enamored with this UAV thing, without a full understanding of the long term consequences of not only force structure imbalance but in command and control, the presentation of forces, and certainly in the acquisition.”²¹ General Moseley believes the USAF should have been the executive agent for RPAs. An executive agent would be able to streamline acquisitions, interoperability, and joint applications. However, because Afghanistan and Iraq were largely Army operations, the way DOD has structured RPAs will have long term consequences for the Airspace Control Authority (ACA) and Area Air Defense Commander (AADC).

¹⁹ Moseley, Interview.

²⁰ Moseley, Interview.

²¹ Moseley, Interview.

If every service has a medium altitude RPA operating during major combat operations, General Moseley warns, “The crisis of airspace control and airspace deconfliction is going to hit us, and we don’t seem to understand what to do about that.”²² Additionally, in an environment mixed with friendly and hostile RPAs, the CFACC as the AADC will be unable to identify friend or foe. The lack of control of an executive agent also hinders employment and acquisitions.

General Moseley expresses concern for a lack of discipline in the employment of each service’s RPAs. He states, “When Gates thumps the Air Force by saying you don’t have enough assets forward deployed, he gives the Army a free ride of probably 60 to 70% of their assets that are not deployed but in garrison. So it seems to be okay to UTC or deploy elements out of Creech AFB, but it’s not okay to demand that the Army do the same thing.”²³ This results in high operations tempos for the Air Force while Army assets are not sharing the operational responsibility. Just as General Jumper touts CONOPS, General Moseley believes separate control of RPAs leads to the lack of a joint operational concept that negates any chance for a valid CONOPS. In addition, there are acquisition inefficiencies when each service buys individual equipment.

Equip and Sustain

Although the Goldwater-Nichols Department of Defense Reorganization Act of 1986 did much to create jointness and streamline the command structure, each CSAF is in unanimous agreement that it has had irreparable consequences for acquisition. Like his counterparts before him, General Moseley believes that Goldwater-Nichols had unforeseen consequences:

That is about the time you started getting internet and email and 24-hour news and it was about the time you started getting Congressional sub-committees and professional staff and personal staff into every event. It was also about the

²² Moseley, Interview.

²³ Moseley, Interview.

time you saw an enormous growth in OSD staff. You end up with the unintended consequences of acquisition reform in Goldwater-Nichols of taking the operators out of the equation and at the same time, so many external pressures are brought to bear on the process. So, it shouldn't surprise anybody that it takes 20-plus years now to field a system because at every decision point you have 100 people in the room and 99 of them can say no; and for the most part, none of them are the using entity. They are not the operating entity.²⁴

He offers a solution where operators follow the original and evolving requirements throughout the process.

Concerning the drawdown of the early nineties General Moseley states, "For a variety of very good reasons at the time, General McPeak had to scale the Air Force down 30-35%, effectively in one or two assignment cycles; he did it about as well as anybody could. But one of the unintended results of that was Air Force Systems Command kind of went away."²⁵ His solution is to bring back a form of Air Force Systems Command, which can defend the requirement from start to finish. He maintains there are too many competing agendas that interfere with the final product. The intent of Goldwater-Nichols was to streamline the acquisition process, and it actually fractured it. Theoretically, the operator defines the requirement, the acquirer procures the system, and operators test the product. However, too many people question the requirement at every step, which extends and in some cases denies the Air Force's ability to recapitalize.

Indeed, General Moseley's recapitalization priorities start with a system that replaces aircraft built in the 1950s. His first priority epitomizes the aforementioned critiques of the acquisition process. Although the KC-46A is finally on track, the process to acquire the tanker has endured for greater than a decade. His second priority,

²⁴ Moseley, Interview.

²⁵ Moseley, Interview.

CSAR-X, which was cancelled in 2009, is another example of acquisition bureaucracy and fiscal constraints that terminated a program many deemed necessary.

In fact, General Moseley agrees with every CSAF that combat search and rescue is a moral imperative. Unlike General Fogleman, he argues that CSAR must be an Air Force mission, “This is a competency that requires focus, skill, combat organization, and combat focused training and equipment. This is not a part time job. This is not an additional duty. This is a primary focus. An opposed combat search and rescue, not a personnel recovery but a combat search and rescue takes absolute focus and an absolute competency that only comes from a single mission area.”²⁶ Similar to General Ryan, he highlights the experience necessary for such a critical mission.

General Moseley’s remaining recapitalization priorities are “space and missile systems that give us the sustainable overhead capacities to do global ISR from space.”²⁷ His fourth priority is the F-35 in the numbers that do not require interim extensions of the F-16, and his fifth priority is a long-range, penetrating bomber. He states, “I wouldn’t change a thing in those priorities because I think the strategic vision of what the American Air Force needs to be able to do is manifested in those requirements.”²⁸ Peripheral priorities include further thought about the production lines of the C-17 and the F-22 based on the mission ready rates of the C-5 and the sustainability of the aging F-15C air superiority fighter.²⁹

General Moseley believes there is no such thing as a 4.5-generation fighter. He states, “Even some of the most aggressive detractors of the F-

²⁶ Moseley, Interview.

²⁷ Moseley, Interview.

²⁸ Moseley, Interview.

²⁹ HQ USAF, MR rates for the C-5 are currently between 25-35%. The F-15C has been IOC since 1976 and is anticipated to be operational until 2025 based on latest USAF estimates. Of note, in 2007, an F-15 broke apart in flight due to structural failure and resulted in the grounding of the fleet for over 2 months.

22 have now come back out and said, we probably should have bought 60 more and kept the line open until the F-35 becomes a reality and then have a discussion on whether the line should shut down.”³⁰ He is quick to point out that it is egotistical and dangerous to assume when and where the next fight will occur. Although he believes that we may never fight the Chinese or Russians in a major combat operation, he is certain that we will fight their equipment. Indeed, the latest SAM technology denies access to all but stealth platforms. While the USAF can certainly make older aircraft more lethal, it cannot make them more survivable in these A2/AD environments.

Regarding the procurement of the F-22, General Moseley defends the actions of his predecessors. He purports that previous CSAFs were staunch advocates of the system and applied sound analysis in their force generation models.

I would not critique General Fogleman for coming off of 800 down to 400 nor would I critique Ryan or Jumper for holding on to that number no more than I critique myself, because 10 deployable squadrons in an AEF template takes you to that 380 to 400 number. I mean, we understand how to do this. But the decision to go from 381 to 176 was not force structure dependent, it was a manning issue with a couple of guys in OSD, with Gates and with Gordon England. It did not have anything to do with an AEF template or a force generation model.³¹

Thus, the Air Force’s tactical fighter force is not matched to an AEF construct. This has drastic ramifications that could place the USAF fighter force in a low density/high demand operational tempo for major combat operations. Certainly, this creates an imbalance in the fighter force that limits commander’s options.

Furthermore, General Moseley believes a balanced force is essential for the USAF. He states, “You have to be able to operate across

³⁰ Moseley, Interview.

³¹ Moseley, Interview.

the full spectrum. You are not going to serve the country well if all you ever do is very basic skill sets or if you focus on one particular piece of the spectrum like counter insurgency or terrorism. The prudent decision is to be prepared to conduct operations across the full spectrum.”³² As General Ryan mentioned, the deterrent piece to this is extremely important. General Moseley warns of the unpredictable nature of the world; “I think tomorrow should be defined by an American military with the capacities to deter and dissuade, and if that fails, shape, and if that fails fight and win with the fewest number of casualties in the shortest amount of time.”³³ Indeed, the resonant trend among all the CSAFs was to create a balanced Air Force able to operate across the full spectrum of combat.

The focus of General Moseley’s tenure was on the dominance of the strategic domains and preparing the USAF for the future. Unlike the other chiefs, he places long-range strike at the bottom of his recapitalization priorities. However, he emphasizes the global nature of the USAF and its ability to shape the environment. Additionally, he was not the first CSAF with a different opinion than civilian leadership on the future of the force. Still, as the most recent CSAF, his experience highlights the competing interests between the present and the future. Perhaps the most common trait among the CSAFs was their view to the future and the role airpower has in defending the nation.

³² Moseley, Interview.

³³ Moseley, Interview.

Conclusion

As a nation we were not prepared for World War II. Yes, we won the war, but at a terrific cost in lives, human suffering, and material, and at times the margin was narrow. History alone can reveal how many turning points there were, how many times we were near losing, and how our enemies' mistakes pulled us through. In the flush of victory, some like to forget these unpalatable truths.

*General Henry "Hap" Arnold
General of the Air Force*

As the 21st century progresses, the world is increasingly volatile. During the Cold War, the U.S. could identify its enemy, and with some certainty prepare for confrontation. In the current hegemonic world, the U.S. has many unforeseen threats. Additionally, the rise in cost of emerging technologies and fiscal constraints limit actions and alternatives. Consequently, leaders must seek new and innovative ways to keep the USAF the dominant force it has become.

The CSAF is responsible for a large and diverse organization. In addition to combat advisory duties, the chief is responsible to prepare, maintain, and present personnel and equipment to the Unified Combatant Commands.¹ Based on the recent statement by the Chairman of the Joint Chiefs, that the national debt is the biggest threat to national security, the looming fiscal crisis will have dramatic impacts on those duties.²

The previous interviews have identified some interesting ideas and suggestions, which may help future leaders mitigate the effects of

¹ U.S. Code: Title 10, Chapter 805, Section 165, Combatant Commands, February 2010.

² Admiral Mike Mullen, CNN interview with the Chairman of the Joint Chiefs of Staff. Aug 2010.

these uncertain situations. At a minimum, the former CSAFs provide strategists a glimpse into the decision processes they employ.

Although the medium of conveyance has changed over the years, each CSAF stressed the importance of a vision statement to the force. Currently, the Air Force Posture Statement communicates the chief's vision. According to the 2011 Air Force Posture Statement, the USAF should prepare for a range of diverse and complex security challenges. It outlines the USAF's strategic vision of Global Vigilance, Reach, and Power and summarizes the CSAF's strategic plan for the organization.³

Indeed, this is not very different from General McPeak's vision statement, "Air Force people building the world's most respected air and space force—global power and reach for America."⁴ General Fogleman added "Global Presence" to the vision statement in 1996, and it has remained consistent throughout the remaining CSAF's tenures. Given the tendency for new leadership to change things upon arrival, this is proof that each CSAF endorsed its basic soundness. Furthermore, a sound vision provides a framework for advocating airpower solutions to the other services and Congress.

To this last point, Generals McPeak and Fogleman share the concern that adding mission sets and changing fundamental principles may dilute the ability to advocate airpower effectively. General McPeak believes the Air Force should only be concerned with operations in the earth's atmosphere. By adding space and cyber to the mission, he argues, USAF officers have taken on too many roles. General Fogleman touts a back to basics approach that emphasizes simplicity and foundational concepts. Similar to General McPeak's critique of the USAF

³ A detailed description of the USAF's strategic vision is in the Department of the Air Force. *Fiscal Year 2011 Air Force Posture Statement*, February 2011. Global Vigilance is the ability to provide surveillance around the world. Global Reach is the ability to project capability responsively and advantageously without regard to distance. Global Power is the ability to hold at risk any target in the world.

⁴ McPeak, *Selected Works*, 154.

acquiring too many mission sets, General Fogleman contends that this institutional inferiority complex causes the USAF to overcomplicate fundamental concepts such as air and space superiority, global attack, rapid global mobility, precision engagement, information superiority, and agile combat generation, potentially leading to confusion.

The organization of the Air Force around combat is a concept with which every CSAF agreed. Starting with General McPeak's drastic reorganization of the USAF around Air Combat Command, the USAF has undergone constant organizational change since 1992. Building on General McPeak's administrative reorganization, General Ryan saw a need for an expeditionary reorganization. Ultimately, the AEF construct did two important things; it helped allay the burden of high operations tempos on the force and provided a framework to organize the force in an expeditionary world.

General Jumper contributed the Global Strike Task Force concept to the AEF framework; where he champions integration and persistence in a capabilities-based approach. Finally, General Moseley's cancelled initiative to incorporate maintenance under operations attempted to organize in peacetime the same way the Air Force deploys in combat. Combat competency is also a common theme for every chief's view of officer development.

Although every CSAF agreed (some with qualifications) that a non-rated officer could perform the duties of the chief, they emphasized combat proficiency as a requirement. In addition to the administrative duties of organize, train, and equip, the CSAF is also a member of the Joint Chiefs of Staff whose primary function is to provide military advice to the President, SECDEF, and NSC. Noting that the advice usually relates to combat and the total force, General Ryan highlights the complexities of CSAR and the importance of conveying those nuances in a military advisor role. General Moseley warns against selecting a CSAF just to break a mold or make a point, and General Jumper suggested the

Air Force must create “new citizens” that move away from the old construct of rated equals warrior. However, they are all adamant that the top leader must have warrior credentials.

Of course, this combat competency goes both ways. Early in a pilot’s career, he is no more able to explain the nuances of geosynchronous orbit as a space officer can explain the takedown of an integrated air defense system. Therefore, it is incumbent upon the individual officer to master his particular field and then seek knowledge in other areas of operations. A certain level of expertise also allows an officer to intelligently advocate air and space power in the joint arena.

Every CSAF agrees that command preparation begins with the individual officer. Generals McPeak and Fogleman emphasize a foundational understanding of an officer’s core profession. Building on the DAL initiative that General Ryan undertook, General Jumper’s Force Development sought to build expertise, broaden experience, and streamline educational opportunities. Finally, General Moseley highlights the advantage an advanced academic degree brings to the ability to articulate and advocate airpower.

Regardless if the degree is relevant to an officer’s profession, AADs will remain a requirement for promotion and advancement. Additionally, PME will hold equal gravitas. As with the ability to master one’s tactical profession, officers should view PME and AADs as necessary steps in self-preparation for command. Certainly, the Department of Defense has placed an emphasis on higher education and qualification for joint command. Furthermore, higher level PME provides a shared experience with sister services.

Based on this, General Moseley contends that an Air Force flag officer is just as qualified as an Army or Navy officer to lead a COCOM; and every chief advocates an active role for the CSAF in placing qualified officers in joint positions. General Fogleman attributes the lack of GCC commander positions for USAF officers as a cultural hindrance due to

the reluctance to put our best and brightest into joint billets.⁵ However, General Ryan believes the current wars are building the foundation and the necessary bridges between the services to foster the trust and confidence essential for selection to GCC command positions.

Although combat competency is a common theme among each CSAF, they are not unanimous on a separate Space force. Each chief does, however provide a nuanced argument for his position. General McPeak is the only CSAF to advocate a separate Space service. He believes that the Air Force should focus on combat in the earth's atmosphere. Just as airpower requires experts for advocacy, Space should have advocates focused solely on space. In fact, many Space practitioners are in agreement with General McPeak.

While General Fogleman advocates a combined air and space force, he suggests a shift in weight of effort in the coming years. He believes that priorities will eventually shift from air to space as the primary focus. Finally, the remaining chiefs are vehemently opposed to separating Space. General Ryan raises two areas of concern. The space portion of the USAF executes limited missions that are mainly support to all the services. In addition, the National Reconnaissance Office (NRO) operates other missions in space separate from the USAF but just as vital to military operations.

General Jumper believes dividing the vertical dimension only limits flexibility. He contends that the USAF should seek technologies that operate in "near space" that bridge the gap between low earth orbit and combustible engine operations. Finally, General Moseley argues this is different from the airmen of the 1930s advocating a separate USAF. As long as space activities directly support activities in the atmosphere and on the surface, Space should remain part of the USAF.

⁵ Fogleman, Interview.

Perhaps the USAF is best served by remembering the teachings of early 20th century naval theorist Sir Julian Corbett. He stressed control of the sea as the fundamental aspect for commerce and prosperity for the nation. Through control, the protection of sea lines of communication allow for freedom of movement and mutual support between the navy and army. Codifying the need for the navy to work in concert with the army to achieve those ends is perhaps his greatest contribution. He concluded the combination of naval and army strategies is key to successful military strategy.⁶

The parallels that exist between sea, air, and space as mediums are apparent. Just as the Navy and Army worked together in Corbett's theory, Air and Space are inexorably linked. The very fact that one must travel through one to get to the other requires coordination. Separating the two mediums would be counterproductive and result in additional bureaucracy. Another area with unintended bureaucratic consequences is weapons system acquisitions.

Every chief has a slightly different take on the acquisition process; however, they were unanimous in their attempts to control requirements and testing. General McPeak explained that congressional oversight will never change and reforming the Pentagon has been studied from the Eberstadt Report of the Hoover commission to the Packard Commission in 1981 and the 1986 Goldwater-Nichols Act. This inability to change is mainly attributable to congressional oversight and the budget process.

Regardless of the expected length of the weapons system's development process, each program is divided into annual cycles. Every year the CSAF has to go before the authorizing and appropriations committees, as well as their subcommittees, in the Senate and House of Representatives. General McPeak asserts these committees serve no purpose unless they change things, and this change negatively affects

⁶ Corbett, *Some Principles of Maritime Strategy*, 308.

the ability to manage a program. Therefore, acquisition reform of a large DOD program will never occur.

Thus, when the USAF highlights acquisition excellence as a priority in the Air Force Posture Statement, there is very little control from the CSAF's perspective. General Moseley's solution is to bring back a form of Air Force Systems Command, which can defend the requirement from start to finish. He maintains there are too many competing agendas that interfere with the final product. Although the intent of Goldwater-Nichols was to streamline the acquisition process, it actually fractured it by allowing too many people to question the requirement at every step.

General Jumper's focus for acquisitions is a return to a CONOPS approach that forces the services to agree on how to fight instead of buying a system and adapting it to the fight. This should foster integration and a more efficient acquisition process, but the tendency is to create a CONOP to justify a program. Based on the recent cancellation of the Army's FCS and the Marine's EFV, General Jumper's suggestion may prove prescient.

Another rationale for a CONOPS approach is to prevent multiple services from acquiring individual platforms for the same mission. If the USAF were the executive agent for RPAs, it would streamline acquisitions, interoperability, and joint applications. However, General Moseley highlights some unintended consequences of the inefficient acquisition of RPAs. If every service has a medium altitude RPA operating during major combat operations, airspace control and defense will be unattainable under the current construct. Mid-air collisions and fratricide would be unavoidable. Finally, acquisition efficiencies help the Air Force's much needed recapitalization effort.

In differing orders of priority, each chief advocates recapitalization in aerial refueling, combat search and rescue, long-range strike, tactical fighters, and ISR satellite systems. With the recent decision to procure

the Boeing KC-46A as the USAF's new tanker, the global reach portion of the USAF triad has been addressed. Additionally, every chief believes the lift forces are in an adequate state.

For the tactical fighter force, General McPeak recommends opening back up the F-22 line to help bridge the gap that will develop when the USAF retires legacy fighters and production delays slip the F-35 to the right. Additionally, every CSAF is concerned with A2/AD. Many believe the USAF should not procure another non-stealthy fighter and the notion of a 4.5-generation fighter is window dressing. It may be necessary to enhance the lethality of the legacy fighters, but it is impossible to increase the survivability of these assets against modern SAM systems such as the S-300.

General Fogleman bases his recapitalization efforts on the number one priority of the USAF, air and space dominance. He advocates a long-range strike platform that leverages existing technologies. General Jumper also advocates long-range strike as a top priority. Congruent with General Fogleman's concern for fiscal constraints, General Jumper recommends integrating advantages and platforms that already exist. Whether one builds something like the F-117 using parts off the shelf or develop a capability through integration, both chiefs acknowledge that a new platform will be expensive for the nation and potentially infeasible due to the looming economic situation. Additionally, the remaining chiefs place long-range strike in their priority list affirming the importance of global power in the USAF triad. Finally, every chief but General Fogleman believes a CSAR asset should either be modernized or acquired. Through the lens of global reach, global power, and global vigilance, the USAF force structure is analyzed; but the triad does not address the balance of the force.

Since World War II, the United States has been unsuccessful at predicting where it will fight next and what the conflict will entail. As technology advances, the cost of future weapon systems has risen

dramatically. To ensure continued global dominance, USAF leaders must maintain a balanced force structure, capable of engaging any adversary throughout the full spectrum of conflict.

Obviously, fiscal constraints limit a chief's ability to buy everything. The ultimate strategy is to reach a balance, and it includes more than just platforms. General Fogleman thinks the USAF focuses on the acquisition of platforms to the detriment of sustainability. With rising gas prices, the cost of flying hours consumes the budget. He is concerned with the readiness of the force. A fifth generation fighter will be worthless without pilots trained to employ it. Therefore, the USAF's first priority for the F-35 should be high fidelity simulators to keep pilots trained. General Ryan also highlights a morale issue when readiness is sacrificed and recommends training should be a top priority.

Another cost savings measure necessary to maintain balance is to eliminate inefficiencies and maximize capabilities. General Jumper suggests AOC manpower can be reduced significantly by using the latest network-centric technologies and implementing a battle management concept on the AOC floor. The AOC weapons system, like many other platforms, should be leveraged for maximum potential. General Fogleman also recommends total force integration to alleviate rising personnel costs. By rebalancing the total force, the active duty should rely on the guard and reserve to play a more traditional role.

Finally, every CSAF plans for an unpredictable future. There are two pieces to this preparation, posturing for deterrence and organizing to fight. This presents a tension between the SECDEF and the service chief. Although service chiefs are involved with current operations and providing forces, they must also focus on the future. Neither of which can be sacrificed. Every chief stresses the importance of maintaining this balance. The proliferation of Russian and Chinese equipment highlights the necessity to maintain high-end capabilities. If the United States continues to act globally, then the USAF must maintain the latest

and most reliable equipment. The consequences of imbalance are failed deterrence and limited options.

The international relations theorist Alexander Wendt concluded that ideas matter in society. Indeed, these ideas are what drive strategy and technology development. Technology and strategy are only as good as the ideas that shape them. In today's international environment, the USAF will continue to face limited conflicts and objectives. The ability for the Air Force to support and fight any type of conflict is paramount.

As Thomas G. Mahnken so eloquently stated, "technology is only as effective as the strategy it serves."⁷ The capacity to predict future conflicts and their nature is elusive and frustrating. The prudent strategist should remain cognizant of this fact and plan for a range of possibilities. A balanced force capable of responding to the entire spectrum of conflict is critical to the future of the U.S. Air Force and its continued success.

⁷ Thomas G. Mahnken, *Technology and the American Way of War*, (New York: Columbia University Press, 2008), 26.

APPENDIX A
(List of Potential Questions)

1. We talk a lot about career broadening to enhance the breadth of an officer's practical experience. Could a non-rated officer perform the duties of the CSAF?
2. Why does it seem like every ten years the USAF talks about recapturing acquisition excellence, yet continue to be plagued with acquisition troubles?
3. Do you think we are still trying to justify our existence as a separate service? Should Space or Cyber be separate as well? If we lose Space and Cyber, will there be a push to combine the AF and the Army? Does the current focus on Irregular War and Budget constraints fuel this fire?
4. What do you think of the idea of IW/COIN/FID wing/base? Would the composite wing be a good model for this organization? From where would you shift resources to make this feasible?
5. How important is it to have specific assets dedicated to the rescue mission?
6. Do you think it is important for the Air Force to have representation in Geographic Combatant Command (GCC) and JTF commander positions, and are we preparing our officers for those roles?
7. Why has the USAF not been represented in GCC positions to the same degree as the other services? Does this affect the USAF on the Hill? Did it affect your tenure as Chief?
8. What do our sister services and congressional/national leaders think about the capabilities of AF officers to command GCCs?
9. Has USAF culture helped or hindered our chances of developing GCC leaders?
10. Would you have done anything different with respect to UAV/RPAs? Have we over-acquired RPA assets due to the current fight while neglecting the demands of an Anti-Access/ Area-Denial (A2/AD) environment?
11. Did we miss an opportunity somewhere with the F-22? Was there some way we could have acquired more? How do we overcome the potential CAF shortage caused by delays in the F-35?

12. What is your personal vision of airpower and how does it relate to the joint team? What should a modern day Air Force accomplish?

13. Is the USAF a balanced force? Where would your priorities lie on recapitalization? (KC-46A, NGB, CSAR-X, Satellites, JSF)

14. Are we prepared to fight future conflicts that range across the spectrum of conflict? Where, if any, do you see our vulnerabilities lie?

15. Were there decisions imposed on you or you made that proved particularly detrimental or advantageous during your tenure?

16. What were your major roadblocks when it came to accomplishing your agenda as chief?



Bibliography

- Arnold, Henry Harley, and John W. Huston. *American Airpower Comes of Age: General Henry H. "Hap" Arnold's World War II Diaries*. 2 vols. Maxwell Air Force Base, AL: Air University Press, 2002.
- Beene, Jeffrey K., and USAF Institute for National Security Studies. *Constraints, Restraints, and the Role of Aerospace Power in the 21st Century*. Colorado Springs, CO: USAF Institute for National Security Studies, USAF Academy, 2001.
- Biddle, Tami Davis. *Rhetoric and Reality in Air Warfare*. Princeton, NJ: Princeton University Press, 2002.
- Boyne, Walter J. *Beyond the Wild Blue: A History of the United States Air Force, 1947-2007*, Second Edition. New York: St. Martin's Press, 2007.
- Brownlee James, F. *The Defense We Can Afford*. New York, NY: Committee for Economic Development, 1958.
- Camm, Frank A., Project Air Force and Rand Corporation. *Managing Risk in USAF Force Planning*. Santa Monica, CA: RAND, 2009.
- Clausewitz, Carl von. *On War*. Edited and translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.
- Cohen, Eliot A., Gulf War Air Power Survey, and United States Air Force. *Gulf War Air Power Survey*. Washington, DC: Office of the Secretary of the Air Force, 1993.
- Corum, James S. *The Luftwaffe: Creating the Operational Air War, 1918-1940*. Lawrence, KS: University Press of Kansas, 1997.
- Corum, James S., and Wray R. Johnson. *Airpower in Small Wars: Fighting Insurgents and Terrorists*, Modern War Studies. Lawrence, KS: University Press of Kansas, 2003.
- Daso, Dik A. *Hap Arnold and the Evolution of American Airpower*, Smithsonian History of Aviation Series. Washington, DC: Smithsonian Institution Press, 2000.
- Davis, Richard G. *On Target: Organizing and Executing the Strategic Air Campaign against Iraq, The USAF in the Persian Gulf War*. Washington, DC: Air Force History and Museums Program, United States Air Force, 2002.
- . *Anatomy of a Reform: The Expeditionary Aerospace Force*. Washington, DC: Air Force History and Museums Program, United States Air Force, 2003.
- Douhet, Giulio. *The Command of the Air*, USAF Warrior Studies. Washington, D.C.: Office of Air Force History, 1983.

- Dunlap, Charles J. and USAF Institute for National Security Studies. *Melancholy Reunion: A Report from the Future on the Collapse of Civil-Military Relations in the United States*, INSS Occasional Paper; Colorado Springs, CO: USAF Institute for National Security Studies, US Air Force Academy, 1996.
- Ehrhard, Thomas P. *An Air Force Strategy for the Long Haul*. Washington, DC: Center for Strategic and Budgetary Assessments, 2009.
- Ficarrotta, J. Carl. *The Leader's Imperative: Ethics, Integrity, and Responsibility*. West Lafayette, IN: Purdue University Press, 2001.
- Fogleman, Ronald R. Personal interview, March 2011. Recording in author's personal collection.
- Futrell, Robert F. *The United States Air Force in Korea, 1950-53*, NY: Duell, Sloan, and Pearce, 1961.
- Frisbee, John L. *Makers of the United States Air Force*, USAF Warrior Studies. Washington, DC: Office of Air Force History For sale by the Supt. of Docs., U.S. G.P.O., 1987.
- Gault, Gary, Brian Pierson, and United States Air Force. *United States Air Force 60th Anniversary : Lessons Learned in Airpower Throughout the Ages*. Rosslyn, VA (1500 Wilson Blvd., Ste. 610 Rosslyn, VA 22209): HQ USAF/A9 Studies & Analyses, Assessment, and Lessons Learned, 2007.
- Gouré, Daniel and Christopher M. Szara. *Air and Space Power in the New Millennium*, Significant Issues Series. Washington, DC: Center for Strategic & International Studies, 1997.
- Gray, Colin S. *The Airpower Advantage in Future Warfare: The Need for Strategy*. Maxwell Air Force Base, AL: Airpower Research Institute, 2007.
- Griffith, Thomas E., Jr. *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific*. Lawrence, KS: University Press of Kansas, 1998.
- Halberstam, David. *War in a Time of Peace: Bush, Clinton, and the Generals*. New York: Scribner, 2001.
- Hastings, Max. *Overlord, D-Day and the Battle for Normandy*. New York, NY: Vintage Books, 1984.
- Haulman, Daniel L. and Air Force History and Museums Program. *One Hundred Years of Flight: USAF Chronology of Significant Air and Space Events, 1903-2002*. 100th anniversary commemorative ed. Maxwell AFB, AL: Air Force History and Museums Program in association with Air University Press, 2003.
- Hennessey, Dr. Juliette A. *The United States Army Air Arm, April 1861 to*

- April 1917, USAF Historical Study No. 98 (1958), Appendix 1.
- Henriksen, Dag. *NATO's Gamble: Combining Diplomacy and Airpower in the Kosovo Crisis, 1998-1999*. Annapolis, MD: Naval Institute Press, 2007.
- Jumper, John P. Personal interview, March 2011. Recording in author's personal collection.
- Kometer, Michael W. *Command in Air War: Centralized Versus Decentralized Control of Combat Airpower*. Maxwell Air Force Base, AL: Air University Press, 2007.
- Lambeth, Benjamin S. *The Transformation of American Air Power*, Cornell Studies in Security Affairs. Ithaca, NY: Cornell University Press, 2000.
- LeMay, Curtis E., Richard H. Kohn, Joseph P. Harahan, and USAF Office of Air Force History. *Strategic Air Warfare : An Interview with Generals Curtis E. Lemay, Leon W. Johnson, David A. Burchinal, and Jack J. Catton*, USAF Warrior Studies. Washington, DC: Office of Air Force History For sale by the Supt. of Docs., U.S. G.P.O., 1988.
- McPeak, Merrill A. *Presentation to the Commission on Roles and Missions of the Armed Forces*. [Washington, DC]: U.S. Air Force, Chief of Staff, 1994.
- . *Selected Works, 1990-1994*. Maxwell Air Force Base, AL: Air University Press, 1995.
- . *Air Force Reorganization: A Big Step Forward*. Strategic Review, Winter 1992, 7-8.
- . *Chief of Staff's Speeches Marking the Activation of USAF's Newest Commands*. Air Force Magazine, July 1992, 48-49.
- . Personal interview, March 2011. Recording in author's personal collection.
- Meilinger, Phillip S. *Airpower: Myths and Facts*. Maxwell Air Force Base, AL: Air University Press, 2003.
- . *Airmen and Air Theory: A Review of the Sources*. Maxwell Air Force Base, AL: Air University Press, 2001.
- . *The Paths of Heaven: The Evolution of Airpower Theory*. Maxwell AFB, AL: Air University Press, 1997.
- Mesic, Richard, Project Air Force, and Rand Corporation. *Courses of Action for Enhancing U.S. Air Force "Irregular Warfare" Capabilities: A Functional Solutions Analysis*. Santa Monica, CA: RAND.
- Mets, David R. *The Air Campaign: John Warden and the Classical*

- Airpower Theorists*. Maxwell, AL: Air University Press, 1999.
- Mets, David R. and William P. Head. *Plotting a True Course: Reflections on USAF Strategic Attack Theory and Doctrine: The Post World War II Experience*. Westport, CT: Praeger, 2003.
- Moseley, Gen T. Michael. *The Nation's Guardians: America's 21st Century Air Force*. 29 December 2007. Accessible at URL: <http://www.af.mil/shared/media/document/AFD-080207048.pdf>.
- . Personal interview, May 2011. Recording in author's personal collection.
- Olsen, John Andreas. *A History of Air Warfare*. 1st ed. Washington, DC: Potomac Books.
- Owen, Robert C. *Deliberate Force: A Case Study in Effective Air Campaigning: Final Report of the Air University Balkans Air Campaign Study*. Maxwell AFB, AL: Air University Press, 2000.
- Overy, Richard J. *The Air War, 1939-1945*. Dulles, VA: Potomac Books, Inc., 2005.
- Perini, Michael B. Lt Col. *Criteria for Today's Leaders: Interview with General Merrill A. McPeak*. Airman, November 1993, 20-21.
- Priest, Dana. *The Mission: Waging War and Keeping Peace with America's Military*. New York: W.W. Norton, 2004.
- Ruehrmund, James C. Jr. and Bowie, Christopher J. *Arsenal of Airpower: USAF Aircraft Inventory 1950-2009*. Washington, DC: Mitchell Institute Press, 2010.
- Ryan, Michael E. Personal interview, March 2011. Recording in author's personal collection.
- United States Air Force Academy. *Fifty Years of Excellence: Building Leaders of Character for the Nation: A Publication Celebrating 50 Years of the U.S. Air Force Academy*. London; Tampa, FL: Faircount LLC, 2004.
- USAF Scientific Advisory Board. *New World Vistas: Air and Space Power for the 21st Century*. 14 vols. [Washington, DC]: The Board, 1996.
- Vick, Alan. *Air Power in the New Counterinsurgency Era: The Strategic Importance of USAF Advisory and Assistance Missions*. Santa Monica, CA: RAND Corp., 2006.
- Warnock, A. Timothy. *Short of War: Major USAF Contingency Operations, 1947-1997*. Washington, DC: Air Force History and Museums Program in association with Air University Press, 2000.
- Watson, George M. *Secretaries and Chiefs of Staff of the United States Air Force: Biographical Sketches and Portraits*. Washington, DC: Air

- Force History and Museums Program, United States Air Force, 2001.
- Watts, Barry D. *The US Defense Industrial Base: The Past, Present, and Future*. Washington, DC: Center for Strategic and Budgetary Assessments, 2008.
- Worden, R. Michael. *Rise of the Fighter Generals: The Problem of Air Force Leadership, 1945-1982*. Maxwell AFB, AL: Air University Press, 1998.
- Air Force Magazine. "The Air Force in Facts and Figures 2010 USAF Almanac."
http://www.airforcemagazine.com/MagazineArchive/Magazine%20Documents/2010/May%202010/0509facts_fig.pdf.
- Catalog of the United States Air Force Oral History Collection.*
- Congressional Budget Office. *The ABCs of Long-Term Budget Challenges*. Washington, DC: Government Printing Office, 8 December 2006.
- Congressional Budget Office. *The Budget and Economic Outlook: Fiscal Years 2008 to 2018*. Washington, DC: Government Printing Office, 23 January 2008.
- Congressional Budget Office. *Economic and Budget Issue Brief: Long-Term Economic Effects of Chronically Large Federal Deficits*. Washington, DC: Government Printing Office, 13 October 2005.
- Congressional Budget Office. *Implications of Demographic Changes for the Budget and the Economy: Hearings before the US House of Representative Committee on Ways and Means*. Washington, DC: Government Printing Office, 19 May 2005.
- Department of the Air Force. *Fiscal Year 2011 Air Force Posture Statement*, 17 February 2011. Accessible at URL:
<http://www.posturestatement.af.mil/shared/media/document/AFD-110301-088.pdf>
- Department of Defense. *Quadrennial Defense Review Report*. 12 February 2010. Accessible at URL: <http://www.defenselink.mil/qdr/>
- Gulf War Air Power Survey: Volume 1: Planning and Command and Control*. Washington, DC: Government Reprints Press, 2001.
- Gulf War Air Power Survey: Volume 2: Operations and Effects and Effectiveness*. Washington, DC: Government Reprints Press, 2001.
- Gulf War Air Power Survey: Volume 3: Logistics and Support*. Washington, DC: Government Reprints Press, 2001.
- Gulf War Air Power Survey: Volume 4: Weapons, Tactics, and Training and*

Space Operations. Washington, DC: Government Reprints Press, 2001.

Official Records and Correspondence of USAF Chief of Staff, Gen McPeak on Leadership, 23 Sep 93, K168.03-795 Part 1, in USAF Collection, AFHRA.

U.S. Code: Title 10, Chapter 805, Section 8033, Chief of Staff, February 2010.

U.S. Code: Title 10, Chapter 805 Section 8013, Secretary of the Air Force, February 2010.

U.S. Code: Title 10, Chapter 805 Section 8032, The Air Staff, February 2010.

U.S. Code: Title 10, Chapter 805 Section 151, Joint Chiefs of Staff, February 2010.

United States Air Force Biography of General Merrill A. McPeak. Available from <http://www.af.mil/news/biographies/>

United States Air Force Biography of General Ronald R. Fogleman. Available from <http://www.af.mil/news/biographies/>

United States Air Force Biography of General Michael E. Ryan. Available from <http://www.af.mil/news/biographies/>

United States Air Force Biography of General John P. Jumper. Available from <http://www.af.mil/news/biographies/>

United States Air Force Biography of General T. Michael Moseley. Available from <http://www.af.mil/news/biographies/>